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DEPARTMENT OF BUSINESS
AND ECONOMIC DEVELOPMENT

The State of Hawaii
DATA BOOK

1989

A Statistical Abstract

1959

November 1989

This report has been cataloged as follows:

Hawaii. Dept. of Business and Economic Development.
State of Hawaii data book; a statistical abstract. Honolulu: 1967-.

Annual.
None published for 1969.
1972 edition accompanied by supplement.
Continues same series under Department's earlier name, Hawaii.
Dept. of Planning & Economic Development.

1. Hawaii-Statistics. I. Data Book.
HA4007.H356.1989

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This report is largely the work of the DBED Research and Economic Analysis Division, headed by Richard Y. P. Joun, Ph.D. It was compiled and edited by Robert C. Schmitt, State Statistician, with the assistance of Sharon N. Nishi, Emogene K. Estores, and Juli Ann R. Oshiro. The camera-ready copy was typed and proofread by Judy F. Noda and Charlotte N. L. Chow. Stewart A. Wastell, illustrator in the Office of State Planning, drew the maps. Printing arrangements were handled by the DBED's Information Office.

Copies of this report are available from the DBED Information Office, 220 South King Street, P. O. Box 2359, Honolulu, Hawaii 96804. The price per copy is $8.00 in Hawaii, $18.00 air-mailed postpaid to the Mainland United States, and $35.00 air-mailed postpaid to foreign countries.

ABOUT THIS BOOK

The State of Hawaii Data Book: A Statistical Abstract is the standard official summary of statistics on the social, economic, and political organization of our island state.

In addition to serving as a reference, it is a guide to other sources of statistics.

The State of Hawaii State Data Book closely follows the organization and format of its counterpart, the Statistical Abstract of the United States, thus facilitating comparison of Hawaii and national data.

The State of Hawaii Data Book places the major emphasis on statewide data and less on counties, islands, urban places, and smaller areas. Source references for additional statistical detail are given in the introductions to the various sections and at the end of each table.

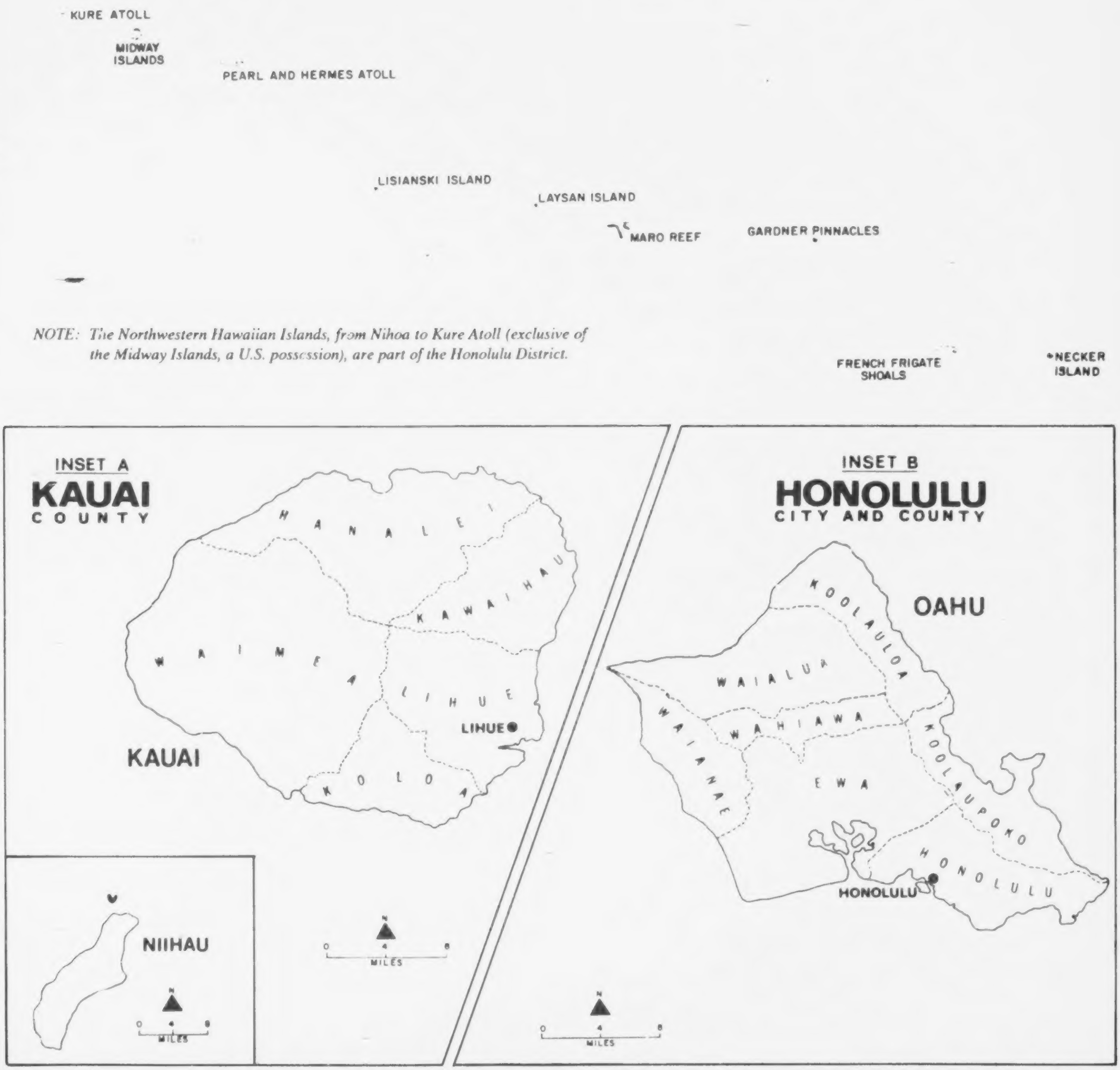
This is the 23rd such abstract published by the State of Hawaii. Earlier editions appeared in 1962, 1967, 1968, and annually beginning in 1970. All before 1989 are now out of print, but copies can be found in many libraries in Hawaii.

Many Federal, State, County, and private organizations cooperated with the DBED Research and Economic Analysis Division in the preparation of this book. They are credited in the source references that accompany the tables to which they contributed.

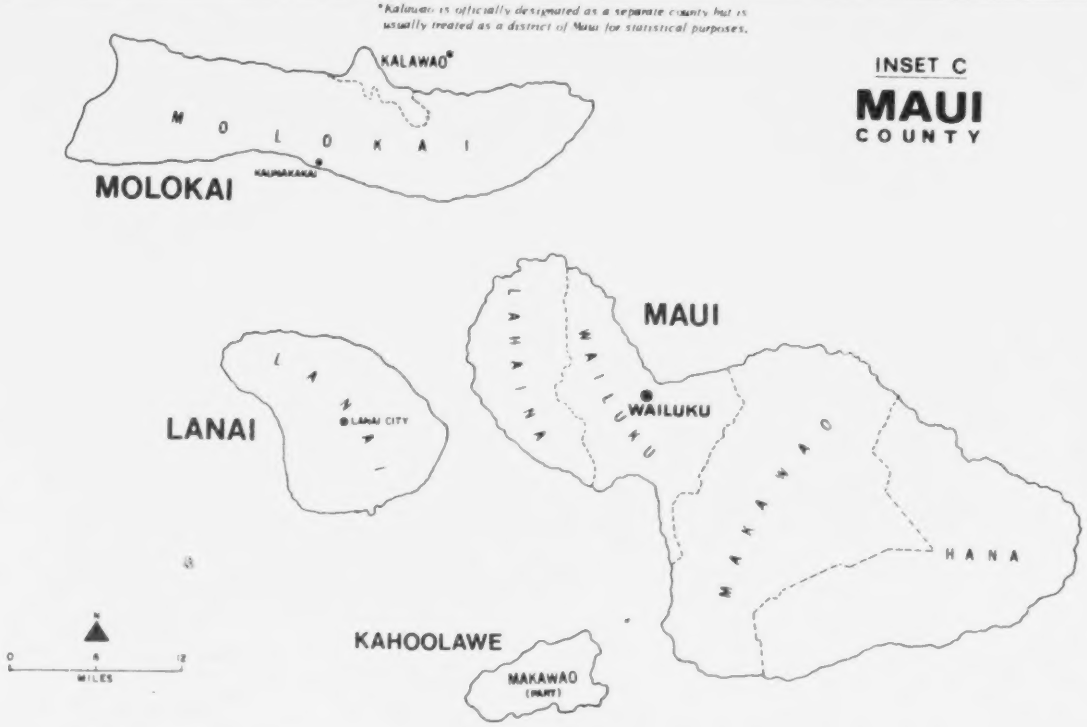
John Waihee
Governor of Hawaii

Roger A. Ulveling.
Director of Business
and Economic Development

STATE OF HAWAII
COUNTIES and DISTRICTS


KURE ATOLL
MIDWAY ISLANDS
PEARL AND HERMES ATOLL
LISIANSKI ISLAND
LAYSAN ISLAND
MARO REEF
GARDNER PINNACLES
FRENCH FRIGATE SHOALS
NECKER ISLAND
INSET A
KAUAI COUNTY
HANALEI
KAWAIHAU
WAIMEA
LIHUE
LIHUE
KOLOA
KAUAI
NIIHAU
N
0 4 8
MILES
INSET B
HONOLULU CITY AND COUNTY
OAHU
KOOLAULOA
WAIALUA
WAHIAWA
WAIANAE
EWA
KOOLAUPOKO
HONOLULU
HONOLULU
N
0 4 8
MILES

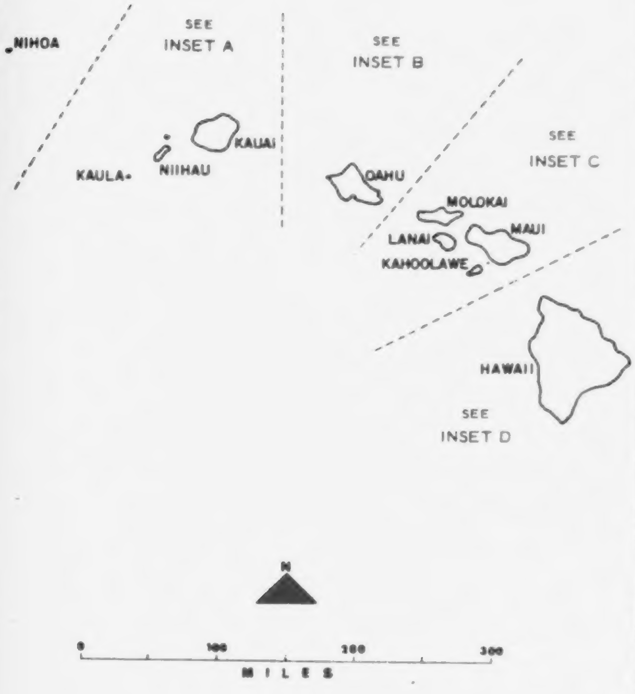
NOTE: The Northwestern Hawaiian Islands, from Nihoa to Kure Atoll (exclusive of the Midway Islands, a U.S. possession), are part of the Honolulu District.



INSET C
MAUI
COUNTY

*Kalawao is officially designated as a separate county but is usually treated as a district of Maui for statistical purposes.

KALAWAO*
MOLOKAI
MOLOKAI
KAUNAKAKAI
MAUI
LAHAINA
WAILUKU
WAILUKU
MAKAWAO
HANA
LANAI
LANAI
LANAI CITY
KAHOOLAWE
MAKAWAO (PART)
N
0 6 12
MILES

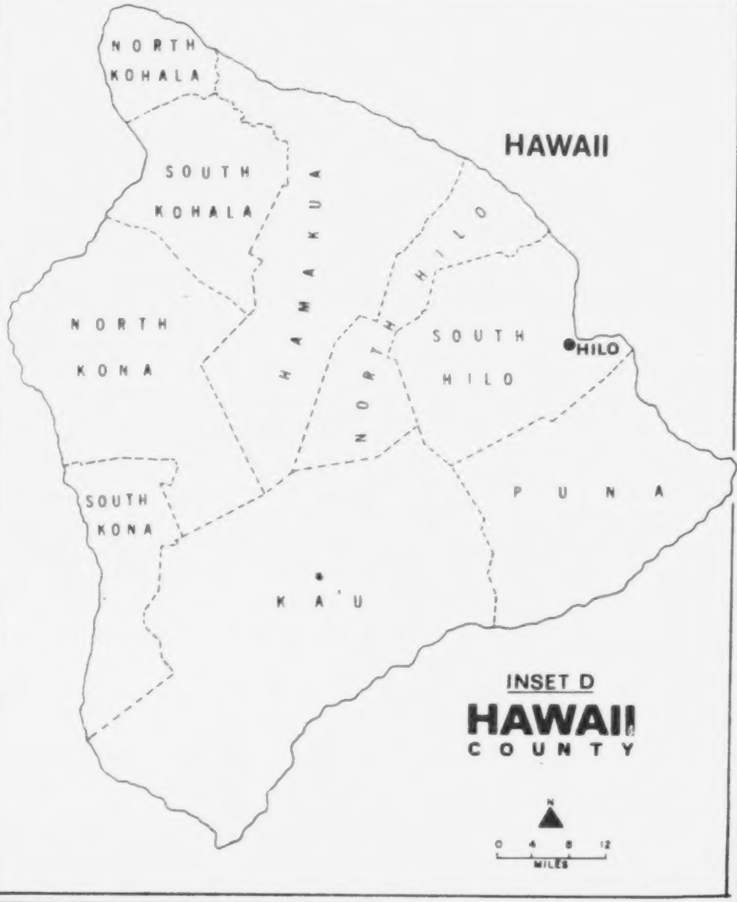


NIHOA
SEE INSET A
SEE INSET B
SEE INSET C
SEE INSET D
KAUAI
NIIHAU
KAULA
OAHU
MOLOKAI
MAUI
LANAI
KAHOOLAWE
HAWAII
N
0 100 200 300
MILES

STATE OF HAWAII

DEPARTMENT OF BUSINESS
AND ECONOMIC DEVELOPMENT

1989



INSET D
HAWAII
COUNTY

HAWAII
NORTH KOHALA
SOUTH KOHALA
HAMAKUA
NORTH HILO
SOUTH HILO
HILO
NORTH KONA
SOUTH KONA
PUNA
KA'U
N
0 4 8 12
MILES

GUIDE TO TABULAR PRESENTATION

The tables in this report generally follow the principles of tabular presentation used by the U.S. Bureau of the Census in its annual publication, Statistical Abstract of the United States, and described in Bureau of the Census Manual of Tabular Presentation, published by the Bureau in 1950. These principles have been accepted by the Department of Business and Economic Development for use in its publications and recommended to all other State agencies for official use.

Headnotes immediately below table titles provide information important for correct interpretation or evaluation of the table as a whole or for a major segment of it.

Unit indicators ("In thousands," "In millions of dollars," etc.) are usually given as the first element of the headnote. In tables where several units are used, the unit indicators are generally given in the stub or in the column headings.

Footnotes below the bottom rule of tables give information relating to specific items, figures or symbols within the table.

Parallel vertical rules are used to the right of a total column to indicate --

(1) that the components which follow add to the total;
(2) in the case of derived figures, that the underlying data are additive to their total.

A dash (-) represents zero in references to absolute values. In rates and percentages, a zero (0) is used.

In many tables, details will not add exactly to the totals shown because of rounding.

Geographic coverage should be understood as Statewide, unless otherwise indicated in the table title, headnote, boxhead, or stub. All annual statistics should be understood as referring to calendar years unless otherwise indicated.

UNITED STATES AND METRIC WEIGHTS AND MEASURES

U.S.			to	Metric	Metric			to	U.S.
Length									
Inches	x	25.4	=	millimeters	millimeters	x	0.039	=	inches
Feet	x	0.305	=	meters	meters	x	3.281	=	feet
Statute miles	x	1.609	=	kilometers	kilometers	x	0.621	=	miles
Area									
Sq. feet	x	0.093	=	sq. meters	sq. meters	x	10.764	=	sq. feet
Acres	x	0.405	=	hectares	hectares	x	2.471	=	acres
Sq. miles	x	2.589	=	sq. kilometers	sq. kilometers	x	0.386	=	sq. miles
Volume and capacity									
Cubic feet	x	0.028	=	cu. meters	cu. meters	x	35.315	=	cu. feet
Cubic yards	x	0.765	=	cu. meters	cu. meters	x	1.308	=	cu. yards
Fluid ounces	x	29.573	=	milliliters	milliliters	x	0.034	=	fluid ounces
Quarts (liq.)	x	0.946	=	liters	liters	x	1.057	=	quarts (liq.)
Gallons (liq.)	x	3.785	=	liters	liters	x	0.264	=	gallons (liq.)
Mass									
Ounces (avdp.)	x	28.350	=	grams	grams	x	0.035	=	ounces (avdp.)
Pounds (avdp.)	x	0.454	=	kilograms	kilograms	x	2.205	=	pounds (avdp.)
Hundredweight	x	45.359	=	kilograms	kilograms	x	0.022	=	hundredweight
Short tons	x	0.907	=	metric tons	metric tons	x	1.102	=	short tons

Miscellaneous conversions
1 statute mile = 5,280 ft. = 1,760 yards
1 acre = 43,560 sq. feet
1 square mile = 640 acres
1 short ton = 2,000 pounds

Continued on next page.

UNITED STATES AND METRIC WEIGHTS AND MEASURES -- Con.

Fahrenheit	to	Celsius	Celsius	to	Fahrenheit
Temperature					
100 °F		37.8 °C	40 °C		104.0 °F
90		32.2	35		95.0
80		26.7	30		86.0
70		21.1	25		77.0
60		15.6	20		68.0
50		10.0	15		59.0
40		4.4	10		50.0
30		-1.1	5		41.0
20		-6.7	0		32.0
10		-12.2	-5		23.0
			-10		14.0

Source: U.S. National Bureau of Standards, Special Publication 304a; Department of Geography, University of Hawaii, Atlas of Hawaii, 2nd edition (1983), pp. 218-219.

POPULATION

This section presents statistics on the growth, geographic distribution, and composition of the population of Hawaii, and on the number and characteristics of migrants moving to and from the State.

Provisional estimates for 1988 indicate a resident population of 1,098,000. This total is well above the 1980 census count of 964,691 and the earlier counts of 422,770 in 1940, 154,001 in 1900, and 84,165 in 1850. These censuses and estimates include members of the armed forces stationed in Hawaii and their local dependents, a group making up 11.5 percent of the resident total when last surveyed. The 1988 de facto population--which included 141,000 visitors present on an average day in that year but excluded 21,000 residents temporarily absent--was 1,219,000. Almost three-fourths of the 1988 de facto total was on Oahu, giving that island a density of 1,514 persons per square mile. The population of the State is mostly male (51 percent), relatively young--the median age in 1988 was 31.9 years--and racially diversified. The major unmixed groups, based on a 1986 sample survey, were Caucasians (23 percent of the non-barracks, non-institutional population) and Japanese (also 23 percent). In addition, 31 percent were of mixed race, primarily part Hawaiian. There were approximately 353,000 households in the State in 1988, with an average household size of 2.99. Migration has been a major factor in the growth of the population: between 1980 and 1988, there was a net in-migration (excluding military personnel and dependents) of 52,000, accounting for 40 percent of the total civilian population growth during that time. Immigrant arrivals in fiscal 1988 numbered 6,600, mostly from the Philippines.

The principal sources for these data are the decennial population censuses conducted by the U.S. Bureau of the Census, the estimates developed annually by the Hawaii State Department of Health and Department of Business and Economic Development in cooperation with the Bureau of the Census, the Hawaii Health Surveillance Program conducted regularly since 1969 by the Department of Health, the ongoing series on visitors present and residents absent maintained by the Hawaii Visitors Bureau, and the U.S. Immigration and Naturalization Service tabulations on immigration. Earlier figures on population and migration are given in Historical Statistics of Hawaii, Section 1 and 3. Comparable national statistics on population and migration appear in Section 1 of Statistical Abstract of the United States: 1989.

Table 1.-- POPULATION: 1831-32 TO 1989

[Missionary censuses for 1831-32 and 1835-36, Hawaiian government censuses for 1850-1896, U.S. government censuses for 1900-1980, and official estimates for 1876, 1944, and 1989. Data through 1896 are on a de facto or unspecified basis; data for 1900 and later years are on a resident basis, and include armed forces stationed or homeported in Hawaii]

Date	Population	Percent change 1/
1831-1832	130,313	...
1835-1836	108,579	-4.6
1850: Jan.	84,165	-1.8
1853: Dec. 26 ..	73,138	-3.5
1860: Dec. 24 ..	69,800	-0.7
1866: Dec. 7 ...	62,959	-1.7
1872: Dec. 27 ..	56,897	-1.7
1876: Jan. 1 2/	53,900	-1.8
1878: Dec. 27 ..	57,985	2.4
1884: Dec. 27 ..	80,578	5.5
1890: Dec. 28 ..	89,990	1.8
1896: Sept. 27 .	109,020	3.3
1900: June 1 ...	154,001	9.4
1910: Apr. 15 ..	191,874	2.2
1920: Jan. 1 ...	255,881	3.0
1930: Apr. 1 ...	368,300	3.6
1940: Apr. 1 ...	422,770	1.4
1944: July 1 3/	858,945	16.7
1950: Apr. 1 ...	499,794	-9.4
1960: Apr. 1 ...	632,772	2.4
1970: Apr. 1 ...	769,913	2.0
1980: Apr. 1 ...	964,691	2.3
1989: July 1 ...	1,112,100	1.7

1/ Annual rate since the previous estimate or census, based on the formula for continuous compounding.

2/ Estimated population at 19th century low.

3/ Estimated population at World War II peak.

Source: Robert C. Schmitt, Historical Statistics of Hawaii (University Press of Hawaii, 1977), pp. 8-10; U.S. Bureau of the Census, 1980 Census of Population, Number of Inhabitants, Hawaii, PC80-1-A13 (October 1981), table 1, and unpublished 1989 estimate.

Table 2.-- RESIDENT POPULATION, BY MILITARY STATUS: 1970 TO 1988

[Excludes visitors present but includes residents temporarily absent]

Year		Total resident population	Armed forces 1/	Civilian population		
				All civilians	Military dependents 2/	Not military dependents
1970:	April 1 .	769,913	55,142	714,771	61,858	652,913
	July 1 ..	771,600	53,800	717,800	57,800	660,100
1971:	July 1 ..	801,600	50,800	750,800	62,200	688,700
1972:	July 1 ..	828,300	52,000	776,400	66,200	710,100
1973:	July 1 ..	851,600	58,100	793,500	70,300	723,200
1974:	July 1 ..	868,000	57,500	810,500	68,300	742,100
1975:	July 1 ..	886,200	58,800	827,400	63,700	763,700
1976:	July 1 ..	904,200	57,800	846,400	67,000	779,400
1977:	July 1 ..	918,300	56,500	861,800	65,000	796,800
1978:	July 1 ..	931,600	58,300	873,300	61,100	812,200
1979:	July 1 ..	953,300	57,900	895,400	64,500	830,900
1980:	April 1 .	964,691	57,056	907,635	64,023	843,612
	July 1 ..	968,900	57,900	911,000	64,100	846,900
1981:	July 1 ..	980,100	56,600	923,600	64,300	859,200
1982:	July 1 ..	997,500	54,900	942,600	66,700	875,900
1983:	July 1 ..	1,018,400	55,200	963,200	66,300	897,000
1984:	July 1 ..	1,035,700	57,300	978,400	67,100	911,300
1985:	July 1 ..	1,049,900	56,400	993,600	64,300	929,300
1986:	July 1 ..	1,063,600	58,100	1,005,500	66,200	939,300
1987:	July 1 ..	1,082,000	58,100	1,023,800	64,800	959,000
1988:	July 1 ..	1,098,200	56,800	1,041,400	69,900	971,500

1/ These figures are the estimates developed by the U.S. Bureau of the Census for use in population estimation. They differ somewhat from corresponding figures from other sources.

2/ Dependents living in Hawaii, regardless of location of family head.

Source: Hawaii State Department of Planning and Economic Development, Intercensal Population Estimates for Hawaii, 1940-1980 (Statistical Report 172, February 1, 1985), table 1; Hawaii State Department of Business and Economic Development, Quarterly Statistical & Economic Report, 1st Quarter 1989, pp. 48-52, as revised.

Table 3.-- RESIDENT AND DE FACTO POPULATION, BY RESIDENCE STATUS: 1970 TO 1988

Year	Resident population 1/		De facto population 3/		De facto-resident ratio 4/
	Total	Temporarily absent 2/	Total	Visitors present 2/	
1970: April 1 ..	769,913	10,300	796,500	36,900	1,035
July 1 ...	771,600	10,000	798,600	36,900	1,035
1971: July 1 ...	801,600	9,400	833,100	40,900	1,039
1972: July 1 ...	828,300	8,600	869,800	50,100	1,050
1973: July 1 ...	851,600	9,800	901,300	59,600	1,058
1974: July 1 ...	868,000	7,800	923,700	63,500	1,064
1975: July 1 ...	886,200	9,000	943,500	66,300	1,065
1976: July 1 ...	904,200	9,400	970,300	75,500	1,073
1977: July 1 ...	918,300	9,000	992,300	83,000	1,081
1978: July 1 ...	931,600	9,300	1,014,300	92,000	1,089
1979: July 1 ...	953,300	9,300	1,042,700	98,700	1,094
1980: April 1 ..	964,691	9,600	1,052,700	97,600	1,091
July 1 ...	968,900	9,600	1,055,800	96,500	1,090
1981: July 1 ...	980,100	11,600	1,064,500	96,000	1,086
1982: July 1 ...	997,500	14,500	1,088,200	105,300	1,091
1983: July 1 ...	1,018,400	11,500	1,115,000	108,000	1,095
1984: July 1 ...	1,035,700	16,100	1,138,300	118,700	1,099
1985: July 1 ...	1,049,900	18,600	1,148,100	116,700	1,093
1986: July 1 ...	1,063,600	17,200	1,179,400	132,900	1,109
1987: July 1 ...	1,082,000	15,700	1,200,500	134,300	1,110
1988: July 1 ...	1,098,200	20,800	1,218,800	141,400	1,110

1/ The resident population is defined as the number of persons whose usual place of residence is in an area, regardless of physical location on the estimate or census date. It includes military personnel stationed or homeported in the area but excludes persons of local origin attending school or in military service outside the area.

2/ Averages for 12-month periods centered on the estimate or census dates.

3/ The de facto population is defined as the number of persons physically present in an area, regardless of military status or usual place of residence; it includes visitors present but excludes residents temporarily absent.

4/ De facto population per 1,000 resident population.

Source: Hawaii State Department of Planning and Economic Development, Intercensal Population Estimates for Hawaii, 1940-1980 (Statistical Report 172, February 1, 1985), table 2; Hawaii State Department of Business and Economic Development, Quarterly Statistical & Economic Report, 1st Quarter 1989, pp. 48-52, as revised.

Table 4.-- RESIDENT POPULATION OF ISLANDS: 1940 TO 1980

Island	1940	1950	1960	1970	1980
State of Hawaii	422,770	499,794	632,772	769,913	964,691
Hawaii	73,276	68,350	61,332	63,468	92,053
Kahoolawe	1	-	-	-	-
Maui 1/	46,919	40,103	35,717	38,691	62,823
Lanai	3,720	3,136	2,115	2,204	2,119
Molokai	5,340	5,280	5,023	5,261	6,049
Oahu 2/	257,664	353,006	500,394	630,497	762,534
Kauai	35,636	29,683	27,922	29,524	38,856
Niihau 3/	182	222	254	237	226
Northwestern Hawaiian Islands .	-	14	15	31	31
French Frigate Shoals	-	14	(NA)	(NA)	4
Laysan Island	-	-	(NA)	(NA)	5
Kure Atoll	-	-	(NA)	(NA)	22
Other islands 4/	-	-	(NA)	(NA)	-
Midway Islands 5/	437	416	2,356	2,220	453
Johnston Atoll 5/	69	46	156	1,007	327
Palmyra Atoll 6/	32	-	-	-	-

NA Not available.

1/ Including Molokini, uninhabited.

2/ Including Sand Island (56 in 1970, 60 in 1980), Mokauea Island (12 in 1970, 11 in 1980), Ford Island (798 in 1970, 522 in 1980), and Moku o Loe (uninhabited in 1970, 16 in 1980). The combined total for Sand Island and Mokauea Island in 1960 was 36. These offshore islands were not reported separately in other years.

3/ Including Lehua and Kaula, uninhabited.

4/ Nihoa, Necker Island, Gardner Pinnacles, Maro Reef, Lisianski Island, and Pearl and Hermes Atoll.

5/ Not part of the Territory or State of Hawaii.

6/ Part of the Territory of Hawaii but not the State of Hawaii.

Source: U.S. Bureau of the Census, decennial census bulletins on number of inhabitants, census tracts, and block statistics, 1940-1980.

Table 5.-- RESIDENT POPULATION, BY COUNTIES: 1970 TO 1988

[Based on place of usual residence. Includes armed forces stationed or homeported in Hawaii and residents temporarily absent; excludes visitors present]

Date	State total	City and County of Honolulu	Hawaii County	Kauai County	Maui County 1/
1970: April 1 ...	769,913	630,528	63,468	29,761	46,156
July 1	771,600	631,600	63,800	29,800	46,500
1971: July 1	801,600	654,600	67,000	30,900	49,100
1972: July 1	828,300	674,900	70,000	31,900	51,500
1973: July 1	851,600	691,400	73,900	32,900	53,400
1974: July 1	868,000	707,600	74,000	32,600	53,800
1975: July 1	886,200	718,600	77,400	33,400	56,800
1976: July 1	904,200	728,300	80,700	34,900	60,300
1977: July 1	918,300	737,000	82,800	35,500	63,000
1978: July 1	931,600	742,600	85,900	36,800	66,200
1979: July 1	953,300	756,000	89,400	38,100	69,700
1980: April 1 ...	964,691	762,565	92,053	39,082	70,991
July 1	968,900	764,800	93,000	39,400	71,600
1981: July 1	980,100	768,300	97,000	40,600	74,100
1982: July 1	997,500	778,500	100,200	41,900	76,900
1983: July 1	1,018,400	793,000	102,600	43,000	79,800
1984: July 1	1,035,700	801,200	107,000	44,100	83,400
1985: July 1	1,049,900	809,900	109,400	45,300	85,300
1986: July 1	1,063,600	819,100	111,200	46,200	87,000
1987: July 1	1,082,000	829,000	114,800	47,900	90,300
1988: July 1	1,098,200	838,500	117,500	49,300	93,000

1/ Including Kalawao County (Kalaupapa Settlement).

Source: Hawaii State Department of Planning and Economic Development, *Intercensal Population Estimates for Hawaii, 1940-1980* (Statistical Report 172, February 1, 1985), table 3; Federal-State Cooperative Program for Local Population Estimates.

Table 6.-- DE FACTO POPULATION, BY COUNTIES: 1970 TO 1988

[Includes all persons physically present in area, regardless of military status or usual place of residence. Includes visitors present but excludes residents temporarily absent, both calculated as averages for 12-month periods centered on estimate date]

Date	State total	City and County of Honolulu	Hawaii County	Kauai County	Maui County 1/
1970: April 1 ...	796,500	650,700	65,700	31,800	48,400
July 1	798,600	650,200	66,600	32,300	49,400
1971: July 1	833,100	675,300	70,600	34,000	53,100
1972: July 1	869,800	702,200	74,500	35,800	57,200
1973: July 1	901,300	726,400	78,700	36,900	59,400
1974: July 1	923,700	746,500	79,500	36,800	60,900
1975: July 1	943,500	757,100	83,300	38,100	65,100
1976: July 1	970,300	772,900	86,800	40,100	70,500
1977: July 1	992,300	786,800	89,300	41,300	74,900
1978: July 1	1,014,300	797,200	93,400	43,600	80,100
1979: July 1	1,042,700	816,000	96,700	45,200	84,800
1980: April 1 ...	1,052,700	822,000	98,700	46,100	85,900
July 1	1,055,800	823,600	99,500	46,400	86,400
1981: July 1	1,064,500	825,400	102,600	47,500	89,000
1982: July 1	1,088,200	840,000	105,700	48,500	94,000
1983: July 1	1,115,000	850,300	110,400	50,600	103,700
1984: July 1	1,138,300	855,700	113,100	54,600	114,900
1985: July 1	1,148,100	860,400	116,000	56,200	115,500
1986: July 1	1,179,400	879,700	119,500	60,400	119,700
1987: July 1	1,200,500	891,500	123,400	62,800	122,800
1988: July 1	1,218,800	902,600	126,300	64,900	125,000

1/ Including Kalawao County (Kalaupapa Settlement).

Source: Hawaii State Department of Planning and Economic Development, Intercensal Population Estimates for Hawaii, 1940-1980 (Statistical Report 172, February 1, 1985), table 10; Federal-State Cooperative Program for Local Population Estimates.

Table 7.-- ESTIMATED POPULATION, RESIDENT AND DE FACTO, AND DE FACTO DENSITY, BY COUNTIES AND ISLANDS: JULY 1, 1988

County and island	Resident population 1/		De facto population 2/		
	Number, 1988	Percent change, 1980-88	Number, 1988	Percent change, 1980-88	Per square mile, 1988
State total	1,098,200	13.8	1,218,800	15.8	189.7
County:					
Hawaii	117,500	27.6	126,300	28.0	31.3
Maui	92,900	31.0	124,900	45.7	107.5
Kalawao	121	-16.0	121	-16.0	9.1
Honolulu	838,500	10.0	902,600	9.8	1,513.7
Kauai	49,300	26.1	64,900	40.8	104.7
Island:					
Hawaii	117,500	27.6	126,300	28.0	31.3
Maui	84,100	33.8	115,400	50.2	158.4
Kahoolawe	-	...	-	...	-
Lanai	2,200	2.9	2,200	1.7	15.7
Molokai	6,700	11.5	7,400	7.4	28.4
Oahu 3/	838,500	10.0	902,600	9.8	1,513.7
Kauai	49,100	26.3	64,700	41.0	117.8
Niihau	207	-8.4	207	-8.4	2.9

1/ For definition, see headnote to table 5.
2/ For definition, see headnote to table 6.
3/ Includes the Northwestern Hawaiian Islands, except Midway.
Source: Hawaii State Department of Business and Economic Development, Quarterly Statistical & Economic Report, 4th Quarter 1989, p. 58.

Table 8.-- RESIDENT POPULATION OF COUNTIES AND DISTRICTS: 1970, 1980, AND 1988

County and district (see map, pp. 6-7)	April 1, 1970	April 1, 1980	July 1, 1988	Percent change	
				1970 to 1980	1980 to 1988
State total	769,913	964,691	1,098,200	25.3	13.8
Hawaii County	63,468	92,053	117,500	45.0	27.6
Puna	5,154	11,751	19,800	128.0	68.6
South Hilo	33,915	42,278	45,400	24.7	7.3
North Hilo	1,881	1,679	1,400	-10.7	-13.9
Hamakua	4,648	5,128	5,300	10.3	3.9
North Kohala	3,326	3,249	3,700	-2.3	14.4
South Kohala	2,310	4,607	7,900	99.4	71.1
North Kona	4,832	13,748	21,600	184.5	56.8
South Kona	4,004	5,914	7,500	47.7	26.7
Ka'u	3,398	3,699	4,900	8.9	31.1
Maui County 1/	46,156	70,991	93,000	53.8	31.0
Hana	969	1,423	1,800	46.9	26.8
Makawao	9,979	19,005	25,400	90.4	33.7
Wailuku	22,219	32,111	42,800	44.5	33.4
Lahaina	5,524	10,284	14,000	86.2	36.4
Lanai	2,204	2,119	2,200	-3.9	2.9
Molokai	5,089	5,905	6,600	16.0	12.1
Kalawao	172	144	121	-16.3	-16.0
City & Co. of Honolulu	630,528	762,565	838,500	20.9	10.0
Honolulu	324,871	365,048	379,300	12.4	3.9
Koolaupoko	92,219	109,373	117,900	18.6	7.8
Koolauloa	10,562	14,195	16,700	34.9	17.5
Waialua	9,171	9,849	11,400	7.4	16.2
Wahiawa	37,329	41,562	45,400	11.3	9.2
Waianae	24,077	31,487	35,300	30.8	12.1
Ewa	132,299	191,051	232,500	44.4	21.7
Kauai County	29,761	39,082	49,300	31.3	26.1
Hanalei	1,182	2,668	5,300	125.7	99.3
Kawaihau	7,393	10,497	13,700	42.0	30.8
Lihue	6,766	8,590	10,000	27.0	16.8
Koloa	6,851	8,734	11,600	27.5	33.2
Waimea	7,569	8,593	8,600	13.5	-0.2

1/ Including Kalawao County.

Source: U.S. Bureau of the Census, 1980 Census of Population, Number of Inhabitants, Hawaii, PC80-1-A13 (October 1981), table 4; Hawaii State Department of Business and Economic Development, Quarterly Statistical and Economic Report, 4th Quarter 1989, p. 59.

Table 9.-- RESIDENT POPULATION, OF ISLANDS, CITIES, TOWNS, AND VILLAGES: 1980

[This table presents data for the 101 "census designated places" defined by the Hawaii State Department of Planning and Economic Development, in cooperation with the Bureau of the Census, for the 1980 decennial census, under authority granted by Sec. 26-18, Hawaii Revised Statutes. Although described in the legislation as "cities, towns, and villages," none of these places is an independent municipality with separate governmental and taxing powers; the boundaries determined for these places are statistical rather than political]

Island and place 1/	Resident population	Island and place 1/	Resident population
Hawaii	92,053	Maui and Molokini	62,823
Captain Cook	2,008	Haiku	619
Hakalau	250	Haliimaile	741
Hawi	795	Hana	643
Hilo	35,269	Honokahua	309
Holualoa	1,243	Kaanapali	541
Honokaa	1,936	Kahului	12,978
Honomu	559	Kihei	5,644
Kailua	4,751	Lahaina	6,095
Kainaliu	512	Lower Paia	1,500
Kapaau	612	Makawao	2,900
Keaau	775	Napili-Honokowai	2,446
Kealakekua	1,033	Paia	193
Kukuihaele	332	Pauwela	468
Laupahoehoe	500	Pukalani	3,950
Makapala	186	Puunene	572
Mountain View	540	Waihee	413
Naalehu	1,168	Waikapu	698
Ookala	401	Wailea	1,124
Paauilo	755	Wailuku	10,260
Pahala	1,619	Remainder of island	10,729
Pahoa	923		
Papaaloa	264	Kahoolawe	-
Papaikou	1,567		
Paukaa	544	Lanai	2,119
Puako	257	Lanai City	2,092
Waimea	1,179	Remainder of island	27
Wainaku	1,045		
Remainder of island	31,030		

Continued on next page.

Table 9.-- RESIDENT POPULATION, OF ISLANDS, CITIES, TOWNS, AND VILLAGES: 1980 -- Con.

Island and place 1/	Resident population
Molokai	6,049
Kaunakakai	2,231
Kualapuu	502
Maunaloa	633
Remainder of island	2,683
Oahu (including Northwestern Hawaiian Islands)	762,565
Ahuimanu	6,238
Aiea	32,879
Barbers Point Housing	1,373
Ewa	2,637
Ewa Beach	14,369
Haleiwa	2,412
Hauula	2,997
Heeia	5,432
Hickam Housing	4,425
Honolulu total	365,048
Oahu part	365,017
Northwestern Hawaiian Islands	31
Iroquois Point	3,915
Kaaawa	959
Kahaluu	2,925
Kahuku	935
Kailua	35,812
Kaneohe	29,919
Laie	4,643
Maili	5,026
Makaha	6,582
Makakilo City	7,691
Maunawili	5,239
Mililani Town	21,365
Mokapu	11,615
Oahu (con.):	
Nanakuli	8,185
Pearl City	42,575
Schofield Barracks	18,851
Wahiawa	16,911
Waialua	4,051
Waianae	7,941
Waimanalo	3,562
Waimanalo Beach	4,161
Waipahu	29,139
Waipio Acres	4,091
Whitmore Village	2,318
Remainder of island	46,344
Kauai	38,856
Anahola	915
Eleele	580
Hanalei	483
Hanamaulu	3,227
Hanapepe	1,417
Kalaheo	2,500
Kapaa	4,467
Kaumakani	888
Kekaha	3,260
Kilauea	895
Koloa	1,457
Lihue	4,000
Poipu	685
Princeville	500
Puhi	991
Wailua	1,587
Waimea	1,569
Remainder of island	9,435
Niihau, Lehua and Kaula	226

[1] For boundaries of places, see Hawaii State Department of Planning and Economic Development, Statistical Boundaries of Cities, Towns and Villages As Approved Through December 31, 1979 (Report SB-A15, March 13, 1980).

Source: U.S. Bureau of the Census, 1980 Census of Population, PC80-1-A13, Hawaii (October 1981), table 4, and unpublished final counts for places under 300 based on enumeration district data supplied February 13, 1981.

Table 10.-- POPULATION RANKING OF THE STATE, HONOLULU, AND COUNTIES: 1980, 1987, AND 1988

Comparison 1/	Resident population, 1988	Ranking		
		1980	1987	1988
State of Hawaii:				
Among the 50 States and D.C.	1,098,000	39	39	39
Among the 50 States	1,098,000	39	39	39
Honolulu MSA: 2/				
Among all MSAs and CMSAs	838,500	47	49	50
City and County of Honolulu: 3/				
Among all counties	838,500	43	39	39
Among all municipalities	838,500	12	(NA)	11
Honolulu CDP: 4/				
Among all incorp. places and CDPs ...	376,110	36	(NA)	37
Hawaii County 5/	117,500	447	396	389
Kauai County 5/	49,300	979	876	850
Maui County 5/	93,000	577	495	483

NA Not available.

1/ MSA, Metropolitan Statistical Area; CMSA, Consolidated MSA; CDP, Census Designated Place, that is, an unincorporated urban place.

2/ The Honolulu MSA consists of the City and County of Honolulu, comprising Oahu and the Northwestern Hawaiian Islands (except Midway).

3/ The City and County of Honolulu consists of Oahu and the Northwestern Hawaiian Islands (except Midway).

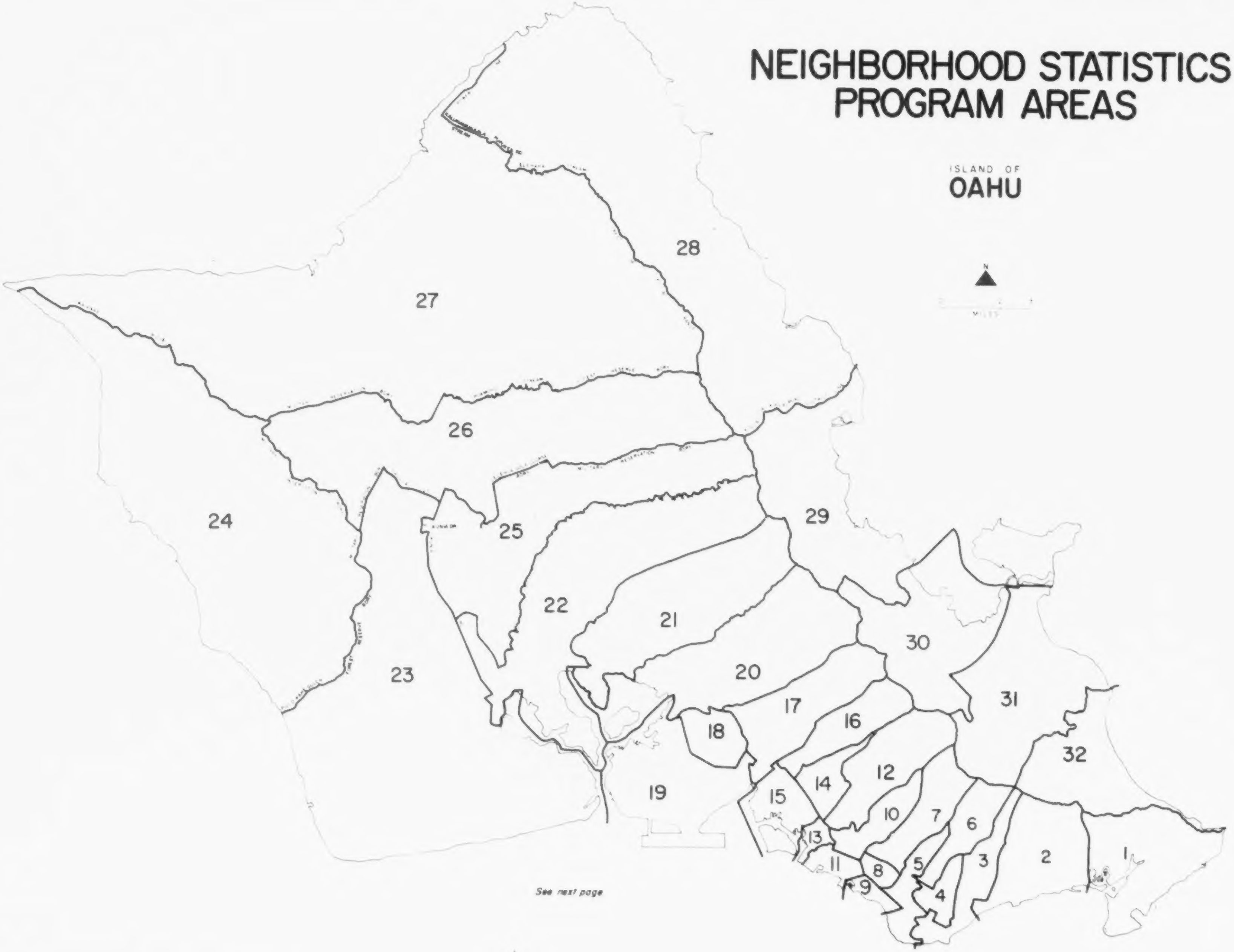
4/ The Honolulu CDP consists of Honolulu District, comprising the area between Red Hill and Makapuu Point, south and southwest of the crest of the Koolau Mountains, and the Northwestern Hawaiian Islands (except Midway). The 1988 population estimate shown here, prepared by the Bureau of the Census, differs slightly from those by the Honolulu Department of General Planning (383,704) and DBED (379,300).

5/ Among all U.S. counties. Kalawao is included with Maui.

Source: U.S. Bureau of the Census, 1980 Census of Population, PC80-1-A1, tables 16, 18, and 27, and press releases, printouts, and records.

NEIGHBORHOOD STATISTICS PROGRAM AREAS

ISLAND OF
OAHU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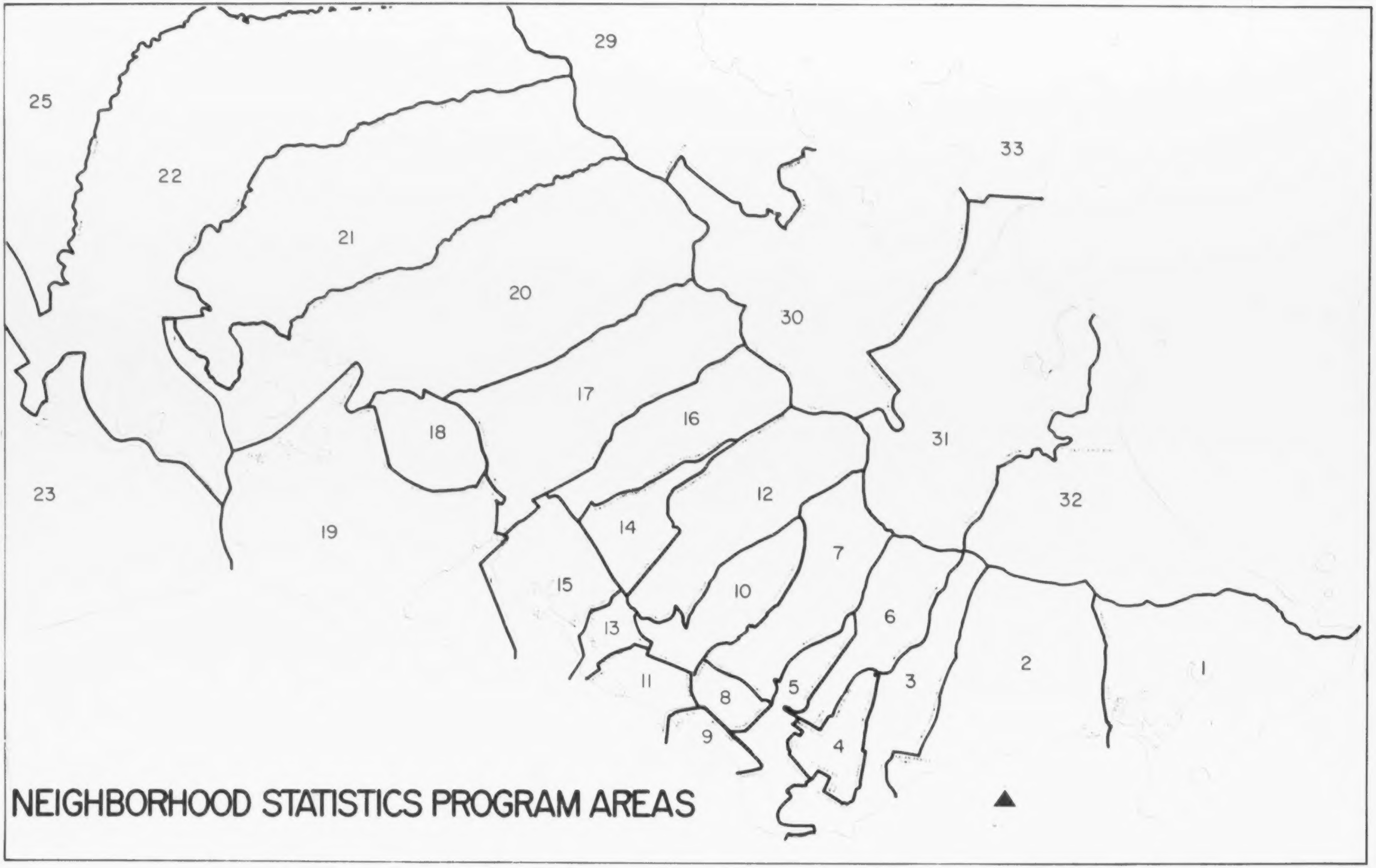

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NEIGHBORHOOD STATISTICS PROGRAM AREAS

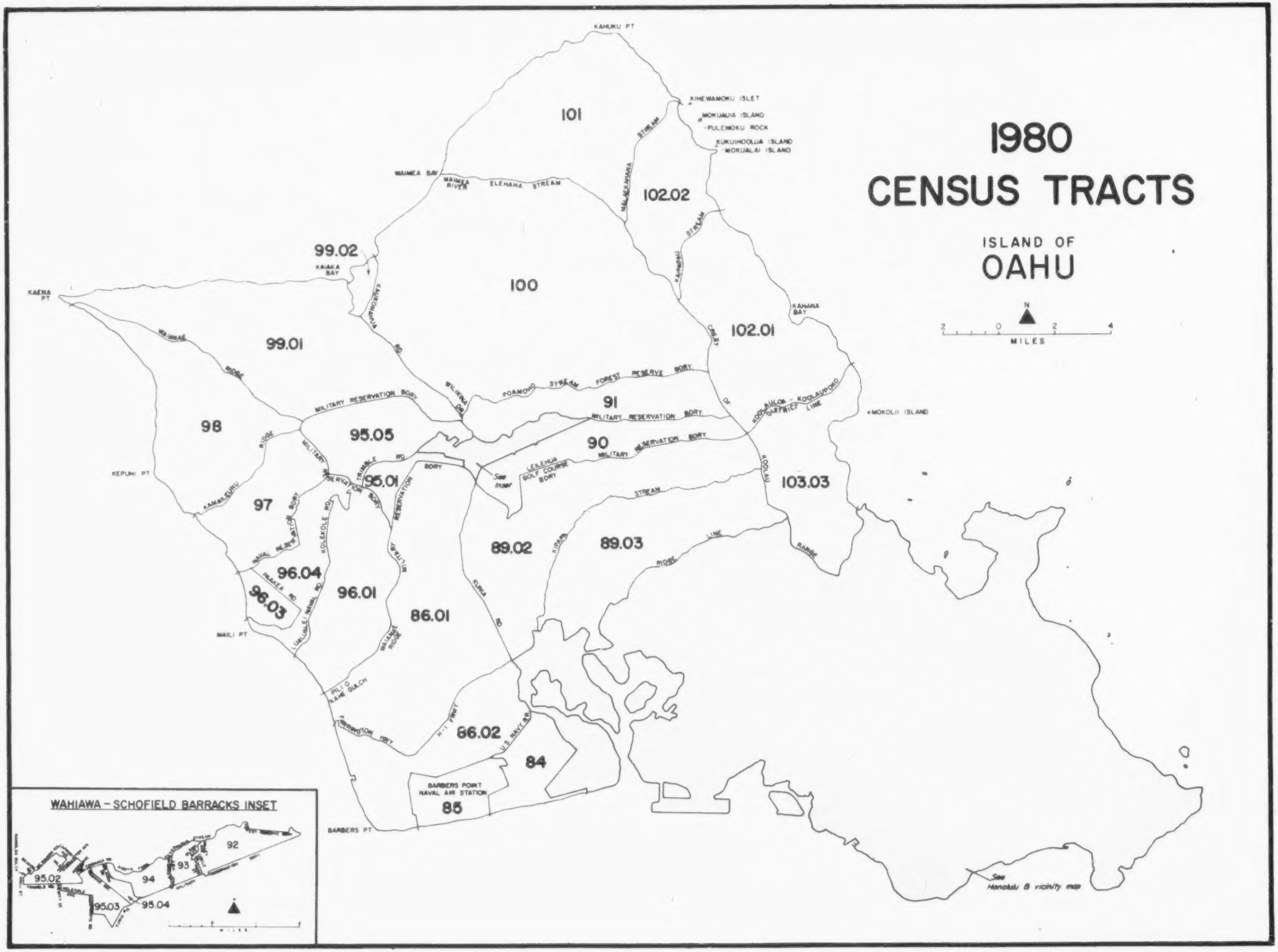
Table 11.-- POPULATION, 1980 AND 1988, AND HOUSEHOLDS, 1980, FOR OAHU NEIGHBORHOODS

Neighborhood (see maps on pp. 23-24)	Resident population			Households, 1980
	April 1, 1980	July 1, 1988	Percent increase	
Oahu total	762,534	838,500	10.0	230,214
1 Hawaii Kai	25,603	28,636	11.8	7,518
2 Kuliouou	14,172	15,949	12.5	4,316
3 Waialae-Kahala	11,474	11,478	0.0	3,882
4 Kaimuki	19,603	20,057	2.3	6,314
5 Diamond Head/ Kapahulu	21,191	21,770	2.7	7,853
6 Palolo	14,110	14,167	0.4	4,092
7 Manoa	22,605	24,052	6.4	6,536
8 McCully/Moiliili	26,644	26,720	0.3	12,188
9 Waikiki	17,384	17,836	2.6	9,852
10 Makiki/Tantalus	28,695	28,568	-0.4	14,050
11 Ala Moana/Kakaako	10,032	11,263	12.3	5,505
12 Nuuanu/Punchbowl	16,166	16,947	4.8	5,361
13 Downtown	8,674	10,985	26.6	4,406
14 Liliha/Kapalama	21,068	23,425	11.2	6,429
15 Kalihi/Palama	40,144	39,754	-1.0	10,837
16 Kalihi Valley	17,613	17,928	1.8	3,885
17 Moanalua	12,948	13,015	0.5	3,400
18 Aliamanu/Salt Lake	31,199	37,360	19.7	9,290
19 Airport	28,436	28,643	0.7	5,416
20 Aiea	30,084	34,393	14.3	8,925
21 Pearl City	42,577	48,548	14.0	11,140
22 Waipahu	33,927	51,221	51.0	8,261
23 Ewa	35,585	38,601	8.5	8,988
24 Waianae Coast	31,487	35,262	12.0	7,964
25 Mililani/Waipio	26,134	32,753	25.3	7,801
26 Wahiawa	41,562	43,653	5.0	10,271
27 North Shore	13,061	13,983	7.1	3,899
28 Koolauloa	10,983	12,417	13.1	2,687
29 Kahaluu	11,782	12,979	10.2	3,360
30 Kaneohe	35,553	41,924	17.9	9,698
31 Kailua/Mokapu	52,906	55,072	4.1	13,953
32 Waimanalo	9,132	9,140	0.1	2,137

Source: U.S. Bureau of the Census, 1980 Census of Population and Housing, Neighborhood Statistics Program, Hawaii, PHC80-SP1-13 (1983); Honolulu Department of General Planning, records.

1980
CENSUS TRACTS

ISLAND OF
OAHU



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KIHEWAMOKU ISLET
MOKUAUIA ISLAND
PULEMOKU ROCK
KUKUIHOOLUA ISLAND
MOKUALAI ISLAND
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WAIMEA BAY
WAIMEA RIVER
ELEHAHA STREAM
MALAEKAHANA STREAM
KAIPAPAU STREAM
KAHANA BAY
KAIAKA BAY
KAENA PT
WAIANAE RIDGE
KAUKONAHUA RD
WILIKINA DR
POAMOHO STREAM
FOREST RESERVE BDRY
MILITARY RESERVATION BDRY
CREST OF KOOLAU
KOOLAULOA - KOOLAUPOKO DISTRICT LINE
MOKOLII ISLAND
LEILEHUA GOLF COURSE BDRY
See Inset
TRIMBLE RD
KEPUHI PT
KAMAILEUNU RIDGE
NAVAL RESERVATION BDRY
KOLEKOLE RD
PAAKEA RD
LUALUALEI NAVAL RD
MAILI PT
WAIANAE RIDGE
KUNIA RD
KIPAPA STREAM
RIDGE LINE
KOOLAU RANGE
PILI O KAHE GULCH
FARRINGTON HWY
H-1 FWY
U.S. NAVY RR
BARBERS POINT NAVAL AIR STATION
BARBERS PT
See Honolulu & vicinity map
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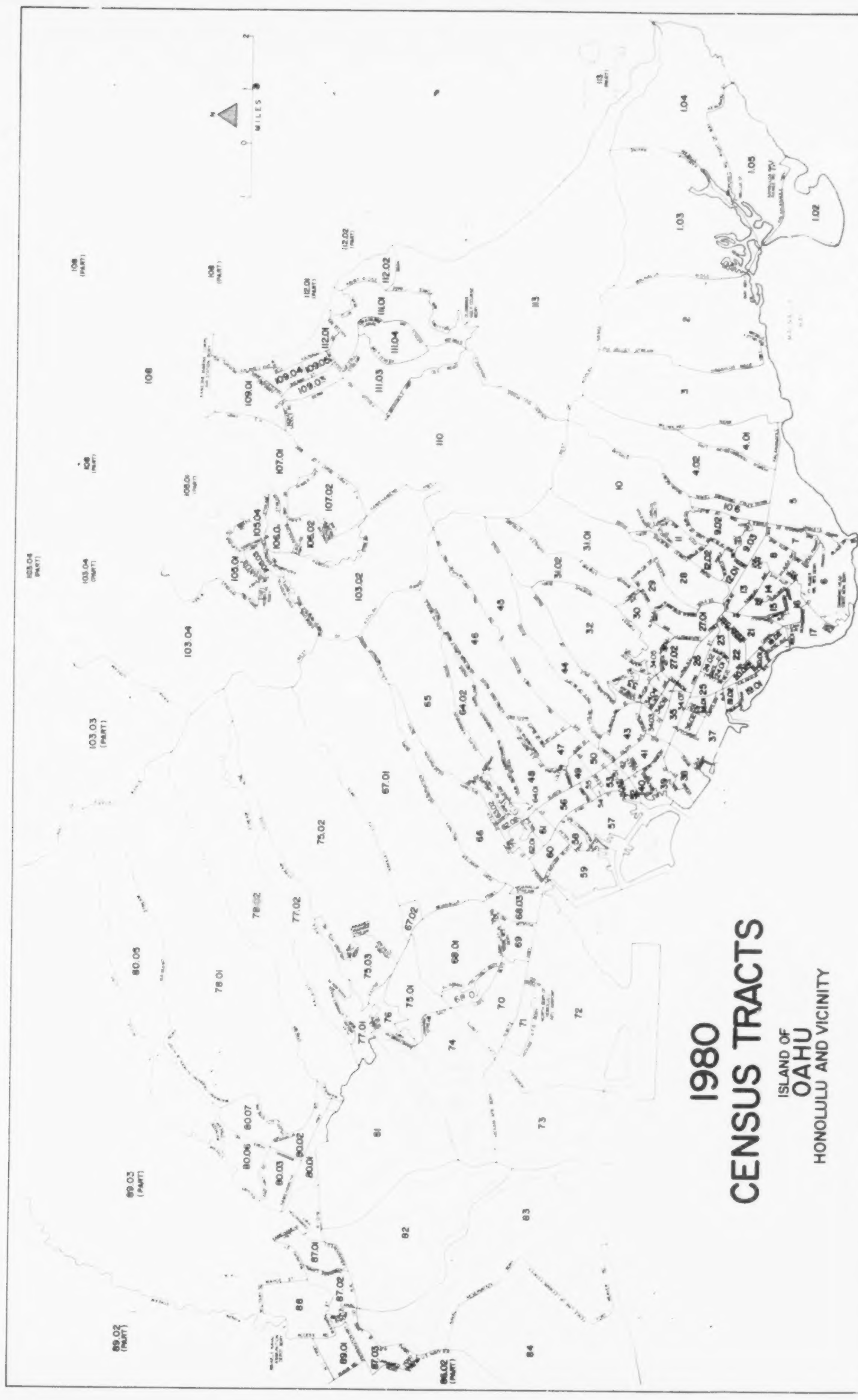


Note Census Tract 114 (not shown) consists of the Northwestern Hawaiian Islands, exclusive of Midway Islands.

Table 23.-- ANCESTRY: 1980

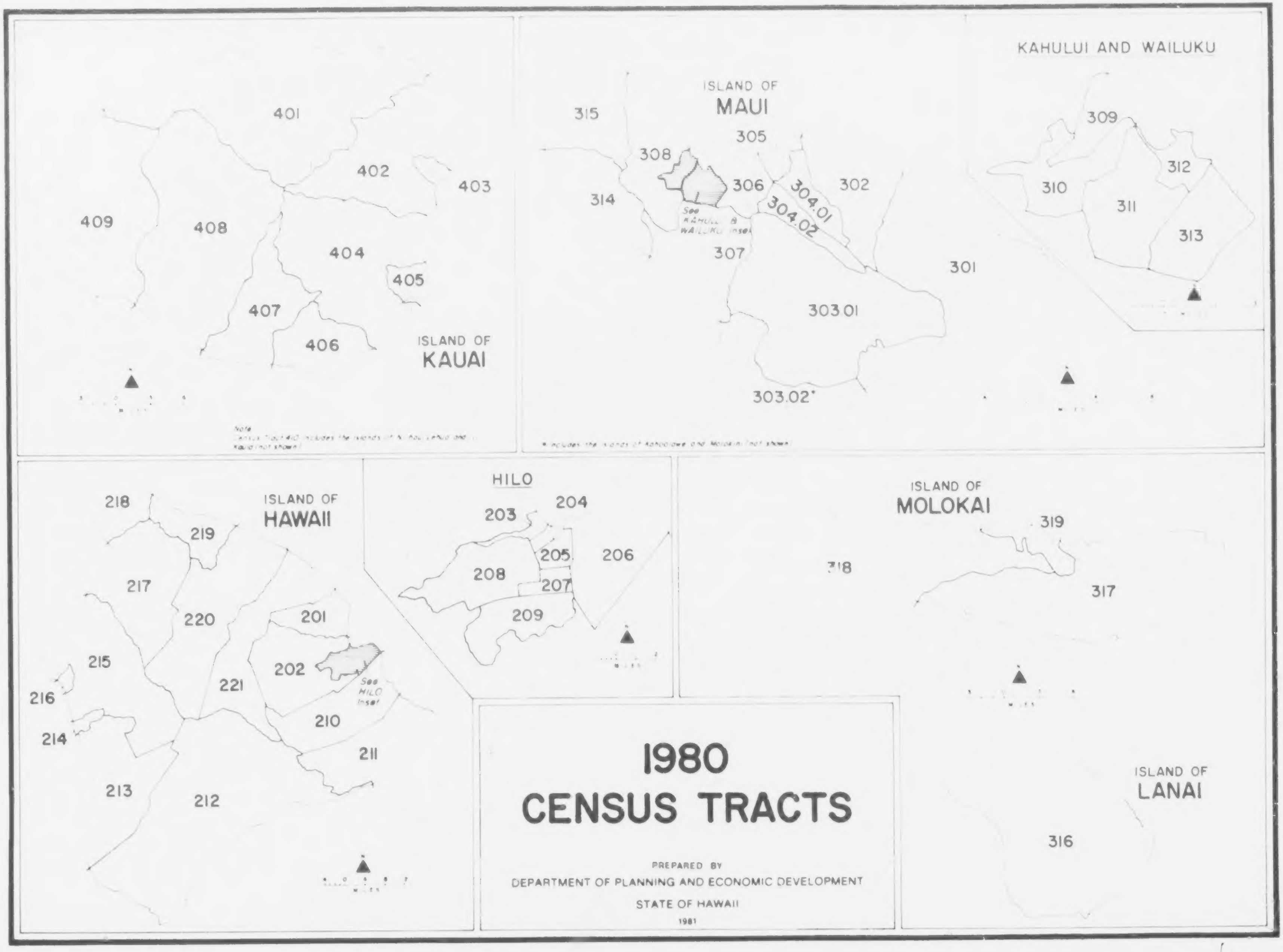
Ancestry group 1/	Persons who reported -- At least one specific ancestry group	A single ancestry group	A multiple ancestry group
Total 2/	901,210	632,972	268,238
Dutch	10,554	1,886	8,668
English	96,223	33,262	62,961
French	26,429	3,926	22,503
German	82,982	22,181	60,801
Irish	68,041	12,845	55,196
Italian	13,994	5,331	8,663
Portuguese	57,541	26,447	31,094
Scottish	24,300	3,387	20,913
Afro-American	15,612	13,200	2,412
Chinese	91,305	45,062	46,243
Filipino	139,621	105,973	33,648
Japanese	246,000	214,964	31,036
Korean	20,854	15,091	5,763
Puerto Rican	14,997	7,082	7,915
Spanish/Hispanic	17,208	4,001	13,207
Hawaiian 3/	136,341	61,226	75,115
American Indian	11,728	2,210	9,518

1/ Shown separately for all groups over 10,000.

2/ Numbers by ancestry group do not add to total because persons reporting a multiple ancestry are included in more than one group.

3/ The U.S. total for persons with Hawaiian ancestry was 202,054, including 84,104 reporting a single ancestry group and 117,950 reporting a multiple ancestry group. Out of 65,708 Mainland residents reporting Hawaiian ancestry, 32,145 were living in California.

Source: U.S. Bureau of the Census, 1980 Census of Population, Ancestry of the Population by State: 1980, Supplementary Report PC80-S1-10 (April 1983).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ISLAND OF
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See HILO Inset
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ISLAND OF
MOLOKAI
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ISLAND OF
LANAI
316
MILES

Note
Census Tract 410 includes the islands of Niihau, Lehua and Kaula (not shown)

* Includes the islands of Kahoolawe and Molokini (not shown)

1980
CENSUS TRACTS

PREPARED BY
DEPARTMENT OF PLANNING AND ECONOMIC DEVELOPMENT
STATE OF HAWAII
1981

Table 12.-- RESIDENT POPULATION OF THE CITY AND COUNTY OF HONOLULU, BY CENSUS TRACTS: 1980 AND 1988

[See maps, pp. 26-27]

Census tract	Apr. 1, 1980	July 1, 1988
Total	762,565	838,500
Honolulu District	365,048	383,704
1.02	2,067	2,071
1.03	10,784	12,504
1.04	7,202	8,308
1.05	5,550	5,753
2	4,970	6,187
3	5,518	5,539
4.01	2,734	3,118
4.02	3,438	3,753
5	4,711	4,543
6	1,654	1,663
7	3,350	3,380
8	4,137	4,203
9.01	2,621	2,623
9.02	3,912	4,021
9.03	2,932	2,973
10	3,213	3,296
11	4,077	4,134
12.01	3,227	3,345
12.02	3,593	3,690
13	4,642	4,673
14	2,797	2,800
15	3,857	3,875
16	4,617	4,658
17	2,492	2,296
18.01	1,140	1,228
18.02	3,259	3,772
19.01	1,412	1,259
19.02	5,413	4,823
20.01	2,560	2,971
20.02	3,600	3,782
21	3,619	3,624
22	6,782	6,685
23	5,073	5,045
24.01	2,912	2,969
24.02	3,042	3,236
25	4,016	3,949
Honolulu Dist. con.		
26	4,819	4,835
27..01	5,291	5,351
27.02.	5,344	5,455
28	3,679	4,404
29	1,583	1,656
30	4,491	4,733
31.01	3,923	4,176
31.02	3,716	3,923
32	1,132	1,136
33	1,069	1,118
34.03	5,074	5,141
34.04	4,511	4,678
34.05	3,014	3,046
34.06	5,238	5,533
34.07	1,033	542
35	4,399	4,447
36.01	4,326	5,094
36.02	2,661	2,767
37	2,477	2,355
38	387	805
39	115	69
39.99 1/	108	108
40	820	1,067
41	4,320	4,336
42	2,637	2,642
43	5,339	5,429
44	5,274	5,324
45	5,042	5,637
46	3,928	3,972
47	4,893	4,981
48	6,146	7,870
49	3,165	3,163
50	4,075	4,621
51	1,611	2,385
52	858	2,269
53	4,529	4,542
54	1,718	1,722
55	2,106	2,130

Continued on next page.

Table 12.-- RESIDENT POPULATION OF THE CITY AND COUNTY OF HONOLULU, BY CENSUS TRACTS: 1980 AND 1988--Con.

[See maps, pp. 26-27]

Census tract	Apr. 1, 1980	July 1, 1988
Honolulu Dist. con.		
56	5,794	6,322
57	1,556	1,410
57.99 1/	592	592
58	3,524	3,494
59	3,854	3,599
59.99 1/	21	21
60	5,663	5,334
61	3,381	3,298
62.01	4,741	4,620
62.02	2,665	2,671
63.01	3,315	3,330
63.02	2,945	3,012
64.01	1,737	1,802
64.02	5,579	5,623
65	4,037	4,161
66	2,716	2,610
67.01	7,477	7,645
67.02	2,755	2,761
68.01	20,689	24,511
68.02	4,890	5,070
68.03	-	-
69	3,109	3,115
70	4,251	4,260
71	2,588	2,718
72	1,364	1,483
114	31	31
Rest of county	397,517	454,793
73	6,393	6,406
73.99 1/	-	-
74	3,138	3,068
74.99 1/	7,593	7,593
75.01	7,467	10,076
75.02	444	444
75.03	4,865	5,190
76	1,556	1,626
77.01	4,645	4,779
77.02	4,838	4,923
78.01	12,813	15,978
78.02	11,367	14,832
Rest of county, con.		
80.01	1,498	1,479
80.02	2,987	2,979
80.03	3,377	5,445
80.05	7,465	7,791
80.06	5,906	5,995
80.07	6,473	6,507
81	2,580	2,581
82	-	-
83	12,437	12,446
84	7,643	7,757
85	2,942	2,947
86.01	8,559	10,246
86.02	4,653	5,849
86.99 1/	21	21
87.01	7,284	7,329
87.02	3,854	3,758
87.03	3,468	3,511
88	4,484	5,534
89.01	7,861	8,003
89.02	25,874	38,913
89.03	6,566	17,083
90	2,413	2,418
91	3,339	3,969
92	7,420	8,102
93	4,451	4,389
94	5,040	5,104
95.01	3,587	3,739
95.02	5,326	5,211
95.03	6,076	6,075
95.04	955	1,083
95.05	2,955	2,917
96.01	5,159	5,740
96.03	5,711	6,116
96.04	4,165	4,184
97	10,524	11,366
98	5,928	7,775
99.01	5,350	5,784
99.02	2,620	2,795
100	1,879	1,919
101	4,491	5,926

Continued on next page.

Table 12.-- RESIDENT POPULATION OF THE CITY AND COUNTY OF HONOLULU, BY CENSUS TRACTS: 1980 AND 1988--Con.

[See maps, pp. 26-27]

Census tract	Apr. 1, 1980	July 1, 1988	Census tract	Apr. 1, 1980	July 1, 1988
Rest of county, con.			Rest of county, con.		
102.01	3,952	4,029	108.99 1/	37	37
102.02	5,752	5,948	109.01	3,161	3,237
103.02	3,232	3,579	109.03	4,158	4,342
103.03	3,593	3,878	109.04	3,506	3,664
103.04	9,784	12,170	109.05	2,536	2,621
105.01	8,712	10,927	110	4,218	4,840
105.03	1,804	1,569	111.01	7,966	8,988
105.04	4,794	5,301	111.03	3,872	4,073
106.01	3,019	3,348	111.04	5,370	5,423
106.02	4,994	5,502	112.01	4,841	5,044
107.01	3,680	3,884	112.02	1,663	1,685
107.02	3,723	4,277	113	9,132	9,134
108	11,578	11,592			

1/ Vessels anchored off the indicated tract.

Source: U.S. Bureau of the Census, 1980 Census of Population and Housing, Census Tracts, Honolulu, Hawaii, Standard Metropolitan Area, PHC80-2-183 (June 1983), table P-1; City and County of Honolulu, Department of General Planning, unpublished estimates.

Table 13.-- RESIDENT POPULATION OF HAWAII, KALAWAO, KAUAI, AND MAUI COUNTIES, BY CENSUS TRACTS: 1980

[See maps, p. 28]

County and census tract	Population
Hawaii County	92,053
201	5,261
202	1,748
203	4,292
204	4,003
205	5,672
205.99 1/	25
206	3,702
207	7,690
208	7,017
209	2,868
210	7,055
211	4,696
212	3,699
213	3,560
214	2,354
215	7,610
216	6,138
217	4,607
218	3,249
219	3,287
220	1,841
221	1,679
Kalawao County	144
319	144
Kauai County	39,082
401	2,668
402	6,030
403	4,467
404	4,590
Kauai County -- con.:	
405	4,000
406	3,879
407	4,855
408	3,111
409	5,256
410	226
Maui County	70,991
301	1,423
302	3,567
303.01	3,850
303.02	1,227
304.01	4,366
304.02	4,285
305	1,710
306	220
307	6,020
307.99 1/	15
308	1,584
309	6,542
310	4,132
311	10,424
312	2,602
313	572
314	6,654
315	3,630
316	2,119
317	3,574
318	2,331

1/ The ".99" census tracts consist of vessels anchored off the indicated tract; for example, persons living aboard ships in Maalaea Bay, adjacent to tract 307, are assigned to tract 307.99.

Source: U.S. Bureau of the Census, 1980 Census of Population and Housing, Census Tracts, Hawaii, Selected Areas, PHC80-2-13 (June 1983).

Table 14.-- RESIDENT AND DE FACTO POPULATION AND EMPLOYED PERSONS, FOR WAIKIKI: 1960 TO 1988

[For definitions of resident and de facto population, see table 3, footnotes 1 and 3. For earlier years, 1920-1950, see Data Book 1987, table 14. Waikiki is the area bounded by the Ala Wai Canal, Kapahulu Avenue, and the Pacific Ocean]

Subject	1960	1970	1980	1988	Density 1/	
					1980	1988
Resident population	11,075	13,124	17,384	17,835	28.4	29.1
Temporarily absent 2/ ..	36	176	174	346	0.3	0.6
De facto population	18,753	34,874	63,710	87,957	103.9	143.5
Visitors present 2/	7,714	21,926	46,500	70,468	75.9	115.0
Employed persons: 3/						
Living in Waikiki	6,327	7,866	9,593	(NA)	15.6	(NA)
Working in Waikiki	(NA)	(NA)	30,011	(NA)	49.0	(NA)

NA Not available.

1/ Per acre. Based on net land area of 613 acres.

2/ Annual averages. Estimated.

3/ Includes armed forces.

Source: Visitors present and residents absent estimated by Hawaii State Data Center from Hawaii Visitors Bureau survey data. Resident population and employment from U.S. Bureau of the Census, census tract bulletins, 1960-1980, Data Book 1987, table 380, and present volume, table 12.

Table 15.-- POPULATION AND LAND AREA, URBAN AND RURAL, BY COUNTIES: 1980

Subject	State total	Honolulu	Hawaii	Kauai	Maui
Land area (square miles)	6,425	596	4,034	620	1,175
Urban 1/	278	184	61	12	21
Rural	6,147	412	3,973	608	1,154
Resident population	964,691	762,565	92,053	39,082	70,991
Urban 1/	834,592	735,291	40,020	17,454	41,827
Rural	130,099	27,274	52,033	21,628	29,164

1/ Includes both the Honolulu Urbanized Area (135 square miles, 582,463 inhabitants) and Kailua-Kaneohe Urbanized Area (34 square miles, 105,712 inhabitants).

Source: U.S. Bureau of the Census, 1980 Census of Population, PC80-1-A1, tables 25 and 34, and PC80-1-A13, table 3; Hawaii State Department of Planning and Economic Development, Statistical Memorandum 83-6 (May 18, 1983).

Table 16.-- CENTERS OF POPULATION, BY COUNTIES: 1980

County	North latitude (degrees)	West longitude (degrees)	Approximate location
State of Hawaii ..	21.2009	157.6129	7 mi. SE of Koko Head
Hawaii County	19.7015	155.3667	17 mi. W of Hilo
Maui County	20.8809	156.5184	1 mi. SW of Wailuku PO
Kalawao County	21.1930	156.9766	Kalaupapa
Honolulu County	21.3704	157.8946	1457 Ala Aolani St.
Kauai County	22.0065	159.4659	3.5 mi. N of Knudsen Gap

Source: Hawaii State Census Statistical Areas Committee, Centers of Population, 1960-1980 (Report CTC-59, August 17, 1984).

Table 17.-- POPULATION PROJECTIONS, RESIDENT AND DE FACTO, BY COUNTIES: 1985 TO 2010

[Thousands. As of July 1. Series M-K projections, developed by DBED]

Type of population and year	State total	City and County of Honolulu	Other counties			
			Total	Hawaii	Kauai	Maui 1/
Resident population: 2/						
1985	1,051.5	811.1	240.4	109.5	45.4	85.5
1990	1,137.2	861.6	275.6	124.6	54.1	96.8
1995	1,225.2	910.4	314.9	142.5	61.1	111.2
2000	1,285.1	932.8	352.4	160.4	68.2	123.9
2005	1,350.8	961.1	389.7	180.8	75.5	133.4
2010	1,435.5	999.5	435.9	206.1	84.6	145.2
De facto population: 3/						
1985	1,149.6	861.6	288.1	116.1	56.2	115.7
1990	1,269.1	928.0	341.2	134.4	70.1	136.7
1995	1,382.3	983.1	399.2	158.6	81.7	159.0
2000	1,468.6	1,012.5	456.1	183.0	94.0	179.1
2005	1,560.3	1,048.5	511.9	211.0	104.8	196.0
2010	1,674.2	1,094.7	579.5	243.0	120.3	216.2

1/ Includes Kalawao.

2/ The resident population is defined as the number of persons whose usual place of residence is in an area, regardless of physical location on the estimate or census date. It includes military personnel stationed or homeported in the area but excludes persons of local origin attending school or in military service outside the area.

3/ The de facto population is defined as the number of persons physically present in an area, regardless of military status or usual place of residence; it includes visitors present but excludes residents temporarily absent.

Source: Hawaii State Department of Business and Economic Development, Population and Economic Projections for the State of Hawaii to 2010 (Series M-K) (November 1988), p. 4.

Table 18.-- RESIDENT POPULATION, BY AGE AND SEX: 1980 AND 1988

[In thousands. Includes armed forces stationed or homeported in Hawaii. The 1988 estimates are provisional]

Age group	April 1, 1980 (census)			July 1, 1988 (estimates)		
	Both sexes	Male	Female	Both sexes	Male	Female
Total	965	495	470	1,098	559	539
Under 5 years	78	40	38	89	46	43
5 to 14 years	148	76	72	154	79	75
15 to 24 years	192	105	87	172	92	80
25 to 34 years	180	92	88	197	102	95
35 to 44 years	111	56	55	170	85	85
45 to 54 years	94	45	50	102	49	53
55 to 64 years	85	42	43	101	51	50
65 to 74 years	49	26	23	72	35	37
75 to 84 years	21	10	11	32	17	16
85 years and over ..	6	2	4	9	4	6
5 to 17 years	198	102	96	198	102	96
18 to 24 years	142	79	63	128	70	58
25 to 44 years	291	148	143	367	187	180
45 to 64 years	180	87	92	203	99	103
16 years and over ..	723	370	352	842	427	415
18 years and over ..	689	353	336	812	412	400
21 years and over ..	631	320	310	759	383	376
65 years and over ..	76	38	38	114	55	59
Median age	28.3	27.6	29.1	31.9	31.2	32.7

Source: U.S. Bureau of the Census, "State Population and Household Estimates, With Age, Sex, and Components of Change: 1981-88," _Current Population Reports, Population Estimates and Projections_, Series P-25, No. 1044 (August 1989), p. 37.

Table 19.-- RESIDENT POPULATION, BY AGE AND SEX, FOR COUNTIES: JULY 1, 1985

[These experimental estimates may reflect special problems relating to identification of race and military population. Methodology published in Current Population Reports, Series P-23, No. 103 and 158]

Sex and age	State total	City and County of Honolulu	Hawaii County	Kauai County	Maui County
Total	1,049,781	810,130	109,262	45,237	85,152
Males	534,769	411,597	56,225	23,544	43,403
Under 5 years	47,593	35,971	5,362	2,221	4,039
5 to 9 years	37,078	27,522	4,838	1,610	3,108
10 to 14 years	37,988	28,574	4,606	1,662	3,146
15 to 19 years	39,343	31,041	3,868	1,562	2,872
20 to 24 years	57,196	48,842	3,773	1,690	2,891
25 to 34 years	100,408	76,710	10,004	4,547	9,147
35 to 44 years	71,342	55,025	7,543	3,144	5,630
45 to 54 years	46,785	36,566	4,571	1,897	3,751
55 to 64 years	49,782	37,675	5,486	2,365	4,256
65 to 74 years	30,797	22,332	3,820	1,728	2,917
75 years and over	16,457	11,339	2,354	1,118	1,646
Females	515,012	398,533	53,037	21,693	41,749
Under 5 years	43,139	32,495	5,107	2,075	3,462
5 to 9 years	35,835	26,639	4,266	1,690	3,240
10 to 14 years	35,307	26,582	3,758	1,887	3,080
15 to 19 years	37,591	29,702	3,778	1,288	2,823
20 to 24 years	48,107	39,607	3,795	1,532	3,173
25 to 34 years	94,655	73,192	9,670	3,870	7,923
35 to 44 years	67,495	53,014	6,309	2,708	5,464
45 to 54 years	49,794	39,132	4,939	1,971	3,752
55 to 64 years	52,810	40,569	5,620	2,224	4,397
65 to 74 years	31,574	23,599	3,662	1,539	2,774
75 years and over	18,705	14,002	2,133	909	1,661
Median age	30.3	30.1	30.9	31.5	31.2
Male	29.8	29.3	30.8	31.9	31.2
Female	31.0	30.9	31.1	31.1	31.3

Source: U.S. Bureau of the Census, County Population Estimates (Experimental) by Age, Sex, and Race: 1980 to 1985 (September 1988).

Table 20.-- PROJECTED RESIDENT POPULATION, BY AGE AND SEX: 1990, 2000, AND 2010

[Thousands. As of July 1. Series M-K projections, developed by DBED. For 1980 estimate see Data Book 1984, table 22]

Age in years	1990			2000			2010		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total .	1,137.2	577.7	559.5	1,285.1	648.8	636.3	1,435.5	722.6	712.8
Under 5	86.9	44.6	42.2	88.4	45.5	43.0	97.9	50.4	47.6
5 to 9	91.5	46.5	45.0	86.9	44.5	42.4	93.7	47.6	46.1
10 to 14 ...	77.9	39.9	38.0	86.9	44.0	42.9	89.2	45.2	44.0
15 to 19 ...	80.7	44.1	36.6	98.2	51.8	46.4	95.0	51.0	44.0
20 to 24 ...	103.5	58.6	44.9	108.1	63.1	45.0	119.2	68.4	50.8
25 to 29 ...	89.0	44.9	44.1	96.1	51.8	44.3	115.4	60.4	55.0
30 to 34 ...	100.5	51.1	49.4	95.8	48.4	47.4	101.8	53.2	48.6
35 to 39 ...	95.3	48.1	47.2	88.1	43.3	44.8	95.2	50.1	45.1
40 to 44 ...	83.0	41.5	41.5	96.9	48.5	48.4	92.6	46.1	46.5
45 to 49 ...	62.3	30.5	31.8	92.0	45.6	46.4	85.2	41.0	44.2
50 to 54 ...	46.6	22.0	24.6	80.9	39.7	41.1	94.4	46.4	48.0
55 to 59 ...	45.9	21.8	24.2	60.5	29.2	31.3	89.9	43.9	46.0
60 to 64 ...	48.9	24.0	24.9	45.4	21.0	24.4	77.9	37.6	40.3
65 to 69 ...	45.8	22.5	23.2	43.0	19.7	23.3	56.4	26.4	30.0
70 to 74 ...	33.4	16.0	17.4	42.4	19.8	22.6	40.0	17.6	22.3
75 to 79 ...	22.7	11.1	11.6	36.1	16.6	19.5	34.3	14.7	19.6
80 to 84 ...	13.8	6.8	7.0	22.8	9.8	13.0	29.5	12.3	17.2
85 and over	9.6	3.6	6.0	16.5	6.5	10.0	27.8	10.3	17.5
Median age .	31.9	31.0	32.9	34.1	32.5	35.8	35.3	33.6	37.2

Source: Hawaii State Department of Business and Economic Development, Population and Economic Projections for the State of Hawaii to 2010 (Series M-K) (November 1988), pp. 6-7.

Table 21.-- ETHNIC STOCK BY MILITARY STATUS: 1986

[Excludes persons in institutions or military barracks, on Niihau, or in Kalawao. Based on a sample survey of 17,107 persons]

Ethnic stock 1/	Total		Armed forces	Military dependents	Other civilians
	Number	Percent			
All groups	1,022,745	100.0	37,169	66,211	919,366
Unmixed	703,990	68.8	34,947	54,545	614,497
Caucasian	239,294	23.4	22,729	33,105	183,460
Japanese	235,207	23.0	127	886	234,194
Chinese	48,727	4.8	67	0	48,660
Filipino	115,519	11.3	1,402	5,456	108,661
Hawaiian	8,093	0.8	0	0	8,093
Korean	13,284	1.3	0	714	12,569
Black	23,032	2.3	8,703	11,573	2,756
Puerto Rican	4,279	0.4	861	1,021	2,397
Samoan	3,825	0.4	151	768	2,906
Other unmixed or unknown .	12,729	1.2	908	1,022	10,800
Mixed	318,755	31.2	2,221	11,665	304,869
Part Hawaiian	203,355	19.9	490	982	201,884
Non Hawaiian	115,401	11.3	1,732	10,684	102,985

1/ Definitions used in this table differ from those in reports of the U.S. Bureau of the Census. Persons of mixed race are shown separately in this table but in 1980 census tabulations are assigned to one of the unmixed groups on the basis of self-identification or race of mother.

Source: Hawaii State Department of Health, Hawaii Health Surveillance Program, special tabulation.

Table 22.-- POPULATION BY RACE AND SPANISH ORIGIN, BY COUNTIES: 1980

[Based on a 15.7-percent sample]

Race and Spanish origin	State total	City and Co. of Honolulu	Other counties			
			Hawaii	Kalawao	Kauai	Maui
Total persons	964,691	762,565	92,053	144	39,082	70,847
Race: 1/						
White	331,925	262,604	32,198	21	11,565	25,537
Black	17,687	17,203	278	-	59	147
American Indian	2,833	2,348	316	-	63	106
Eskimo	74	69	-	-	-	5
Aleut	69	28	17	-	-	24
Japanese	239,734	190,218	24,446	23	9,606	15,441
Chinese	55,916	52,301	1,600	9	587	1,419
Filipino	132,075	96,421	12,746	26	9,944	12,938
Korean	17,453	16,566	522	1	128	236
Asian Indian	708	637	25	-	-	46
Vietnamese	3,403	3,251	139	-	-	13
Hawaiian	118,251	81,868	17,317	59	6,057	12,950
Guamanian	1,630	1,470	49	-	64	47
Samoan	14,349	13,975	219	3	63	89
Other Asian and Pacific Islander 2/	7,140	6,410	490	2	24	214
Race n.e.c.	21,444	17,196	1,691	-	922	1,635
Spanish origin: 3/						
Spanish origin	71,399	54,619	8,261	1	3,226	5,292
Not of Spanish origin ..	893,292	707,946	83,792	143	35,856	65,555

n.e.c. Not elsewhere classified.

1/ Persons of mixed race classified by self-identification or race of mother. Data are not comparable either to earlier censuses or to such surveys as the Hawaii Health Surveillance Program. The latter survey reported that 27.3 percent of the population in households in 1980 was of mixed race (17.9 percent Part Hawaiian and 9.4 percent non-Hawaiian).

2/ For detailed composition, see Census of Population: 1980, Asian and Pacific Islander Population in the United States: 1980 (2 parts), PC80-2-1E (1988), table 2.

3/ For a cross-tabulation of Spanish origin by race, see Data Book 1985, table 27.

Source: U.S. Bureau of the Census, Census of Population: 1980, General Social and Economic Characteristics, Hawaii, PC80-1-C13 (1983), tables 58 and 59.

Table 24.-- NATIVITY, PLACE OF BIRTH, AND CITIZENSHIP: 1980 AND 1970

Nativity, place of birth, and citizenship	State totals		Islands: 1980	
	1980	1970	Oahu	Other islands
NATIVITY AND PLACE OF BIRTH				
Total persons	964,691	768,559	762,565	202,126
Native 1/	827,675	692,964	649,354	178,321
Born in Hawaii	557,990	455,060	420,120	137,870
Born in different State	248,752	178,531	209,901	38,851
Born abroad, at sea, etc. 2/	20,933	17,286	19,333	1,600
Foreign born	137,016	75,595	113,211	23,805
Europe and U.S.S.R.	9,100	5,595	7,457	1,643
China	6,112	4,663	5,875	237
Japan	22,265	19,685	18,718	3,547
Korea	9,060	2,063	8,774	286
Philippines	58,510	33,175	43,880	14,630
Vietnam	3,606	(3/)	3,531	75
All other countries	22,267	8,208	19,719	2,548
Country not reported	6,096	2,206	5,257	839
CITIZENSHIP 4/				
Foreign born	137,016	73,578	113,211	23,805
Naturalized citizen	62,287	30,566	51,314	10,973
Not a citizen	74,729	43,012	61,897	12,832

1/ 1970 figure includes persons not reporting place of birth, not shown separately.

2/ Includes persons born in Puerto Rico, American Samoa, or other outlying areas of the United States, and persons born at sea or in a foreign country having at least one American parent.

3/ Included with "All other countries."

4/ 1970 data based on a subsample; foreign born total thus differs somewhat from corresponding figure shown elsewhere in this table.

Source: U.S. Bureau of the Census, 1980 Census of Population, General Social and Economic Characteristics, Hawaii, PC80-1-C-13 (June 1983), tables 61, 63, and 118; 1970 Census of Population, Detailed Characteristics, Hawaii, PC(1)-D13 (July 1972), tables 141 and 144.

Table 25.-- PLACE OF BIRTH, CITIZENSHIP, AND LENGTH OF RESIDENCE IN HAWAII, BY MILITARY STATUS: 1986

[Excludes persons in institutions or military barracks, in Kalawao, or on Niihau. Based on a sample survey of 17,107 persons]

Subject	All groups	Armed forces	Military dependents	Other civilians
Total	1,022,745	37,168	66,210	919,367
PLACE OF BIRTH				
Native born	881,296	33,793	55,951	791,551
Hawaii	657,347	1,085	10,900	645,362
Mainland U.S.	217,803	32,222	43,052	142,528
U.S. territory, possession	6,146	486	2,000	3,661
Foreign born	133,113	2,997	9,196	120,920
China (including Taiwan) .	13,066	-	61	13,005
Japan	19,257	134	955	18,169
Korea	9,709	89	1,006	8,614
Philippines	66,175	1,469	4,191	60,515
Other foreign	24,904	1,306	2,983	20,616
Not reported	8,336	377	1,063	6,896
CITIZENSHIP				
U.S. citizen	953,111	95,993		857,117
Native born	881,296	89,744		791,551
Naturalized	71,815	6,249		65,566
U.S. national	1,187	-		1,187
Alien	53,329	6,663		46,666
Not reported	15,118	722		14,396
LENGTH OF RESIDENCE IN HAWAII				
Median years	16.6	2.9	2.6	19.8

Source: Hawaii State Department of Health, Hawaii Health Surveillance Program, special tabulation.

Table 26.-- LANGUAGE SPOKEN AT HOME BY PERSONS FIVE YEARS OLD AND OVER, BY ABILITY TO SPEAK ENGLISH: 1980

[Unless otherwise specified, data are based on a 15.7-percent sample]

Language	Total	Speak English --			
		Very well	Well	Not well	Not at all
Persons 5 and over	887,707	...	...	...	...
Speak only English at home	658,752	...	...	...	...
Speak a language other than English at home	228,955	110,338	74,946	37,797	5,874
Chinese 1/	20,066	9,057	6,096	4,014	899
Japanese 1/	80,230	39,640	24,705	13,475	2,410
Korean	9,231	2,707	3,317	2,749	458
Philippine language 1/	66,655	26,550	26,311	12,533	1,261
Spanish	11,933	8,752	2,460	697	24
All others	40,840	23,632	12,057	4,329	822
Speak a Polynesian language at home 2/	21,740	12,220	7,200	2,220	100
Hawaiian 2/, 3/	9,060	6,580	2,200	240	40
Samoan 2/	11,020	5,000	4,320	1,640	60
Tongan 2/	1,180	360	560	260	-
Other Polynesian 2/	480	280	120	80	-

1/ For statistics on individual Chinese, Japanese, and Philippine languages or dialects, see Data Book 1984, tables 38 and 39.

2/ Based on the 5-percent Public Use Microdata Sample.

3/ For demographic characteristics of persons speaking Hawaiian at home, see Data Book 1986, table 32. By race, this group included 7,920 Hawaiians, 580 whites, 240 Chinese, and 320 members of other races. For all 9,060, the median age was 44.4 years.

Source: U.S. Bureau of the Census, 1980 Census of Population, Detailed Population Characteristics, Hawaii, PC80-1-D13 (October 1983), table 197, and Census of Population and Housing, 1980, Public Use Microdata Sample A-5 Percent (Hawaii), special tabulation by Hawaii State Data Center.

Table 27.-- POPULATION CHARACTERISTICS, BY MILITARY STATUS: 1980

Subject	All groups	Armed Forces	Military dependents 1/	Other civilians
Number	964,691	58,443	61,974	844,274
Race (percent):				
White	34.4	73.7	67.2	29.3
Black	1.8	13.3	7.5	0.6
American Indian, Eskimo, Aleut	0.3	0.9	0.4	0.3
Asian and Pacific Islander	61.2	8.1	20.8	67.9
Other	2.2	3.9	4.0	2.0
Spanish origin (percent)	7.4	7.1	8.9	7.3
Males per 100 females	105.4	1,224.9	48.3	99.3
Median age (years)	28.4	24.9	14.3	29.7
Population per household	3.14	3.29		3.12
Percent in group quarters	4.1	41.1	6.8	1.8
Percent of persons 15 and over married:				
Male	55.7	52.6	21.3	56.7
Female	57.3	44.4	88.9	55.0
Children ever born per 1,000 women 15-44	1,219	460	1,499	1,201
Place of birth (percent):				
Hawaii	57.8	4.2	17.1	64.5
Different State	25.8	87.2	64.2	18.7
Foreign country	14.2	6.1	12.0	14.9
Residence in 1975 (percent):				
Same house as 1980	49.3	3.6	7.2	55.3
Different State	16.9	79.7	65.6	9.2
Abroad	5.9	9.7	14.3	5.1
Percent of persons 25 and over high school graduates	73.8	95.5	84.6	72.2
Percent of persons 16 and over in labor force	68.3	100.0	44.6	66.5
Percent of civilian labor force unemployed	4.7	...	12.2	4.5
Percent of employed persons in managerial and professional specialty occupations	23.5	...	19.4	23.6
Median income in 1979 (dollars):				
Persons	7,325	8,123	3,273	7,532
Families	22,648	14,055	...	24,234
Unrelated individuals	7,154	6,608	...	7,791

1/ Military dependents are defined as civilians in families in which either the householder or the householder's spouse is in the Armed Forces.

Source: Hawaii State Department of Planning and Economic Development, Population Characteristics of Hawaii by Military Status, 1980 (Statistical Report 163, September 30, 1983), tables 1 and 2.

Table 28.-- HOUSEHOLD TYPE AND RELATIONSHIP: 1980

Household type and relationship	State total	Oahu	Other islands
Total persons	964,691	762,565	202,126
In households	925,092	725,865	199,227
Householder	294,052	230,214	63,838
Family householder: Male	190,426	148,549	41,877
Female	35,609	28,367	7,242
Nonfamily householder: Male	37,333	28,632	8,701
Female	30,684	24,666	6,018
Spouse	185,698	145,333	40,365
Child	330,281	260,999	69,282
Brother or sister	11,115	8,989	2,126
Parent	11,493	9,231	2,262
Other relative	50,361	38,890	11,471
Nonrelatives	42,092	32,209	9,883
In group quarters	39,599	36,700	2,899
Inmate of institution	5,785	4,565	1,220
Other	33,814	32,135	1,679
Persons 75 years and over living alone	5,075	3,560	1,515
Persons per household	3.15	3.15	3.12
Persons per family	3.61	3.62	3.56
Persons under 18 years	275,583	214,563	61,020
Householder or spouse	387	295	92
Own child	243,671	190,289	53,382
In married-couple family	204,455	159,866	44,589
With female householder, no husband present	32,392	25,584	6,858
With male householder, no wife present	6,824	4,889	1,935
Other relatives	25,918	19,832	6,086
Nonrelatives	3,985	2,941	1,044
Inmate of institution	387	349	38
Other, in group quarters	1,235	857	378
Persons 65 years and over	76,150	55,368	20,782
Family householder: Male	25,453	17,831	7,622
Female	3,959	3,024	935
Spouse	13,763	9,755	4,008
Other relatives	14,015	10,945	3,070
Nonrelatives	1,887	1,396	491
Nonfamily householder: Male	4,670	3,046	1,624
Female	8,705	6,548	2,157
Inmate of institution	2,961	2,116	845
Other, in group quarters	737	707	30

Source: U.S. Bureau of the Census, Census of Population: 1980, General Population Characteristics, Hawaii, PC80-1-B13 (1982), table 21.

Table 29.-- FAMILY TYPE BY PRESENCE OF OWN CHILDREN: 1980

Presence of own children	All families	Married couple families	Female householder no husband present
Total	226,035	185,698	29,422
With own children under 18 years	123,087	101,644	17,410
With own children under 6 years only	32,604	27,528	4,131
With own children under 6 and 6 to 17 years	25,070	21,883	2,779
Number of own children under 18 years	243,671	204,455	32,392
Number of own children under 6 years	79,619	68,656	9,230

Source: U.S. Bureau of the Census, Census of Population: 1980, General Population Characteristics, Hawaii, PC80-1-B13 (1982), table 21.

Table 30.-- HOUSEHOLDS AND HOUSEHOLD SIZE: 1950 TO 1988

[As of April 1, 1950-1980, and July 1 thereafter. For annual estimates, 1971-1979, see Data Book 1985, table 585]

Year	Households	Average size	Year	Households	Average size
1950 ...	111,858	4.14	1983 ...	316,000	(NA)
1960 ...	153,064	3.87	1984 ...	323,000	(NA)
1970 ...	203,088	3.59	1985 ...	330,000	(NA)
1980 ...	294,052	3.15	1986 ...	336,000	(NA)
1981 ...	304,000	(NA)	1987 ...	344,000	(NA)
1982 ...	310,000	(NA)	1988 ...	353,000	2.99

NA Not available.

Source: Robert C. Schmitt, Historical Statistics of Hawaii (University Press of Hawaii, 1977), p. 33. U.S. Bureau of the Census, Census of Population: 1980, General Population Characteristics, Hawaii, PC80-1-B13 (1982), table 14; "State Population and Household Estimates, With Age, Sex, and Components of Change: 1981-88" Current Population Reports, Population Estimates and Projections, Series P-25, No. 1044 (August 1989), pp. 64-65.

Table 31.-- HOUSEHOLDS AND HOUSEHOLD SIZE, BY COUNTIES: 1980 AND 1985

County	Households				Average population per household	
	July 1, 1985 (estimate)	April 1, 1980 (census)	Change, 1980-85		July 1, 1985 (estimate)	April 1, 1980 (census)
			Number	Percent		
State total ..	330,000	294,052	36,000	12.4	3.06	3.15
Hawaii	34,900	29,237	5,700	19.4	3.08	3.09
Honolulu	253,400	230,214	23,200	10.1	3.06	3.15
Kauai	14,300	12,020	2,300	18.9	3.14	3.22
Maui	27,700	22,581	5,200	22.8	3.04	3.10

Source: U.S. Bureau of the Census, "Estimates of Households, for Counties: July 1, 1985," Current Population Reports, Special Studies, Series P-23, No. 156 (March 1988), p. 19.

Table 32.-- HOUSEHOLDS AND FAMILIES: ANNUAL AVERAGES, 1983-85 AND 1986-88

[Based on pooled samples of 1,730 households (5,288 persons) for 1983-1985 and 1,512 households (4,540 persons) for 1986-1988]

Subject	1983-1985	1986-1988
Number of households	327,394	349,885
Persons in households	999,381	1,033,439
Per household	3.05	2.95
Number of families	247,523	266,734
Persons in families	877,672	923,091
Per family	3.55	3.46

Source: U.S. Bureau of the Census for the U.S. Bureau of Labor Statistics, Current Population Survey (March), annual, 1983 to 19888; machine-readable data file, special abulation by Hawaii State Data Center.

Table 33.-- MARITAL STATUS, BY SEX: ANNUAL AVERAGE, 1986-88

[Excludes persons in institutions or military group quarters. Based on a pooled sample of 4,540 persons of all ages]

Marital status	Male	Female
Persons 15 years old and over	413,802	400,194
Single, never married	143,927	84,808
Married, except separated	233,840	233,662
Separated	5,224	5,285
Widowed	7,401	43,594
Divorced	23,411	32,846

Source: U. S. Bureau of the Census for the U.S. Bureau of Labor Statistics, Current Population Survey (March), annual, 1986 to 1988, machine-readable data file, special tabulation by Hawaii State Data Center.

Table 34.-- CHURCH MEMBERSHIP, FOR SELECTED DENOMINATIONS: 1982 AND 1987

Denomination	1982 1/	1987
Buddhist:		
Honpa Hongwanji	21,500	10,308
Christian:		
Assembly of God	7,000	12,681
Church of Jesus Christ of Latter-Day Saints	31,027	45,000
Episcopal	10,541	10,876
Roman Catholic	209,000	220,000
Southern Baptist	11,340	13,926
United Church of Christ	17,485	18,540
United Methodist	6,242	6,618

1/ For 1982 data for other denominations, see Data Book 1988, table 37.

Source: Geography Department, University of Hawaii, Atlas of Hawaii, 2nd ed. (1983), p. 133; Honolulu Advertiser, August 20, 1988, p. A-8.

Table 35.-- COMPONENTS OF CHANGE IN THE RESIDENT POPULATION, BY MILITARY STATUS AND COUNTIES: 1980 TO 1988

[April 1, 1980 to June 30, 1988. For 1970-1980, see Data Book 1985, table 45]

Military status and county	Net change	Vital events			Net migration 1/
		Natural increase	Live births	Deaths	
THE STATE					
State total	+133,500	107,100	152,600	45,400	+26,400
Armed forces	-200	-600	-	600	+300
Military dependents	+5,900	31,400	32,100	700	-25,500
Other residents	+127,900	76,300	120,500	44,100	+51,600
Annual average	+15,500	9,300	14,600	5,400	+6,300
Percent distribution	100.0	59.7	...	...	40.3
COUNTIES					
City & Co. of Honolulu	+75,900	83,700	117,300	33,700	-7,800
Armed forces	-100	-600	-	600	+500
Military dependents	+5,900	31,400	32,100	700	-25,400
Other residents	+70,000	52,800	85,200	32,400	+17,200
Other counties	+57,600	23,500	35,200	11,800	+34,200
Hawaii	+25,400	10,200	15,800	5,500	+15,200
Kauai	+10,200	4,400	6,700	2,300	+5,800
Maui and Kalawao	22,000	8,800	12,800	3,900	+13,200

1/ Includes net changes in military status.

Source: Federal-State Cooperative Program for Local Population Estimates.

Table 36-- INTENDED RESIDENTS ARRIVING FROM THE MAINLAND UNITED STATES, BY MILITARY STATUS: 1983 TO 1988

Military status	1983	1984	1985	1986	1987	1988
Total	21,720	27,050	25,770	21,650	14,640	7,850
Armed forces	7,353	10,410	11,247	8,913	6,215	3,097
Military dependents ..	8,562	12,150	11,599	7,991	5,525	1,914
Other civilians	5,805	4,490	2,924	4,746	2,900	2,839
Sample (persons)	2,343	1,464	1,524	1,321	907	493

Source: Hawaii State Department of Business and Economic Development, Hawaii's Migrants, 1986 (Statistical Report 203, October 5, 1987), tables 7 and 17, and special tabulation of 1987-1988 data from Hawaii Visitors Bureau.

Table 37.-- CHARACTERISTICS OF INTENDED RESIDENTS ARRIVING FROM THE MAINLAND UNITED STATES: 1988

[Based on a sample of 340 parties consisting of 493 persons]

Military status of family head	Persons per party	Median age (years)	Males per 100 females	From Western States (percent)	Retired party heads (percent)
Total	1.45	25.5	150.9	26.1	1.8
Civilian only	1.35	29.3	113.5	35.1	4.6

Source: Hawaii State Department of Business and Economic Development, special tabulation from Hawaii Visitors Bureau data.

Table 38.-- IMMIGRANTS ADMITTED, BY COUNTRIES OF BIRTH: 1984 TO 1988

[Years ended September 30. Data refer to immigrants admitted to the United States, reporting Hawaii as their State of intended permanent residence, and include non-immigrant arrivals who changed their status after entry]

Country of birth	1984	1985	1986	1987	1988
All countries	8,981	7,868	7,814	6,796	6,637
Canada	97	130	115	131	139
China and Taiwan	825	799	724	678	579
Japan	223	286	240	265	285
Korea	948	988	894	912	913
Philippines	4,662	4,231	4,508	3,784	3,410
Vietnam	795	280	296	144	330
Other countries	1,431	1,154	1,037	882	981

Source: U.S. Immigration and Naturalization Service, records.

Table 39.-- SOUTHEAST ASIAN REFUGEE ARRIVALS: 1980 TO 1986

Fiscal year	Number	Fiscal year	Number
1980	2,385	1984	291
1981	1,422	1985	302
1982	642	1986	251
1983	333		

Source: Data from U.S. Department of Health and Human Services, Office of Refugee Resettlement, cited in *Statistical Abstract of the United States* for 1984-1988.

Table 40.-- PERSONS NATURALIZED, BY COUNTRIES OF FORMER ALLEGIANCE: 1983 TO 1988

[Years ended September 30]

Year	All countries	China and Taiwan	Korea	Philippines	United Kingdom	Other countries
1983	6,668	534	1,032	3,693	301	1,108
1984	6,448	289	787	4,200	192	980
1985	4,291	238	561	2,434	93	965
1986	4,760	286	594	2,669	105	1,106
1987	4,070	253	485	2,306	97	929
1988	3,763	272	431	2,097	98	865

Source: U.S. Immigration and Naturalization Service, records.

Table 41.-- RESIDENCE ONE YEAR EARLIER, 1981-1984, 1986-1988, AND FIVE YEARS EARLIER, 1985

[Excludes persons in military group quarters. Based on a sample of 2,428 households (7,512 persons of all ages) for 1981-1984, 532 households (1,616 persons) for 1985, 1,512 households (4,540 persons) for 1986-1988]

Subject	Total population 1/	Nonmovers	Different house		
			Same State	Different State	Different country
Residence 1 year earlier:					
Annual average, 1981-1984	960,402	782,172	129,081	39,473	9,676
Annual average, 1986-1988	1,028,075	841,533	127,181	47,999	11,362
Residence 5 years earlier, 1985	921,236	534,131	252,978	107,359	26,768

1/ Excludes persons under 1 year old in 1981-1984, 1986-1988, and under 5 years old in 1985.

Source: U.S. Bureau of the Census for U.S. Bureau of Labor Statistics, Current Population Survey (March), annual, 1981 to 1988; machine-readable data file, special tabulation by Hawaii State Data Center.

Table 42.-- RESIDENCE ONE YEAR EARLIER, BY MILITARY STATUS: 1985 AND 1986

[Excludes persons under one year old and residents of military barracks, institutions, Kalawao, and Niihau. Based on a sample survey of 17,642 persons 1 year old and over in 1985 and 16,862 persons 1 year old and over in 1986]

Place of residence one year earlier	All groups	Armed forces	Military dependents	Other civilians
1985				
Population 1 and over	995,306	35,821	60,386	899,099
Same house	851,010	22,971	40,781	787,258
Different house, same island	88,098	5,092	4,885	78,121
Different island	6,399	165	353	5,881
Different state	31,744	6,250	12,520	12,974
U.S. territory or possession	180	-	-	180
Different country	7,046	997	1,365	4,684
Previous residence not reported .	10,830	347	482	10,001
Migrants 1/	38,970	7,247	13,885	17,838
Percent of number reporting ...	4.0	20.4	23.2	2.0
1986				
Population 1 and over	1,007,462	37,168	62,785	907,508
Same house	865,198	23,849	43,765	797,584
Different house, same island	87,607	6,245	6,750	74,612
Different island	4,504	239	65	4,200
Different state	31,194	5,265	10,372	15,556
U.S. territory or possession	802	-	52	750
Different country	6,689	629	1,188	4,872
Previous residence not reported .	11,468	940	594	9,934
Migrants 1/	38,684	5,895	11,612	21,178
Percent of number reporting ...	3.9	16.3	18.7	2.4

1/ From different state, territory, or country.

Source: Hawaii State Department of Health, Hawaii Health Surveillance Program, special tabulation.

Table 43.-- LIKELIHOOD OF OUT-MIGRATION, BY MILITARY STATUS: 1985 AND 1986

[Based on response to question, "How likely is it that this person will be living some place other than Hawaii one year from today?" asked of samples of 17,934 persons in 1985 and 17,107 persons in 1986. Excludes persons living in institutions or barracks, in Kalawao, or on Niihau]

Likelihood of out-migration	All groups	Armed forces	Military dependents	Other civilians
1985				
Total	1,011,882	35,821	64,281	911,780
Almost certain to be living in Hawaii	936,670	23,230	43,539	869,901
Some possibility of living elsewhere	16,292	712	1,666	13,914
A good chance of living elsewhere ...	5,989	1,129	2,255	2,605
Almost certain to be living elsewhere	38,648	10,311	16,329	12,008
Not reported	14,283	438	492	13,353
1986				
Total	1,022,746	37,169	66,211	919,366
Almost certain to be living in Hawaii	946,243	24,670	44,421	877,152
Some possibility of living elsewhere	20,414	1,699	3,441	15,274
A good chance of living elsewhere ...	5,037	784	1,026	3,227
Almost certain to be living elsewhere	37,095	9,131	16,650	11,314
Not reported	13,956	885	672	12,399

Source: Hawaii State Department of Health, Hawaii Health Surveillance Program, special tabulation.

Section 2

VITAL STATISTICS AND HEALTH

This section presents data on births, deaths, marriages, divorces, diseases, accidents, alcohol and drug use, height and weight, hospitals, and health personnel.

Vital indexes generally reflect the high health standards of Hawaii. Expectation of life at birth in 1984-86 was 75.37 years for males and 80.92 years for females. There were 5,970 resident deaths in 1988, or 5.4 per 1,000 resident population. Deaths under one year of age per 1,000 live births numbered 10.8 in 1988. Diseases of the heart have accounted for almost a third of all deaths in recent years; cancer, for one-fourth. Resident live births in 1988 numbered 18,937, or 17.2 per 1,000 resident population. The total fertility rate for civilians fell from 3,360 per 1,000 women in 1960 to 2,013 in 1988. Fully 98.6 percent of all babies were born in hospitals in 1988, and 20 percent were born to military couples. More than one out of five births was to an unmarried woman. There were 7,409 fetal deaths in 1988, including 5,998 elective abortions. Marriages numbered 17,281 in 1988, with about 44 percent accounted for by nonresidents. Divorces reached a 1988 total of 5,020. The State had 22 acute care hospitals (with 2,855 beds), 38 long-term care facilities (with 3,191 beds), and nine specialty care facilities (with 808 beds) in 1989. There were 2,425 physicians and surgeons, 882 dentists, 8,218 professional nurses, and 516 pharmacists licensed and living in Hawaii as of March 1989. Acute conditions per 100 persons numbered 210 in 1986, with respiratory conditions the most common complaint (at 148 cases per 100 persons). Among chronic conditions reported in the 1986 survey data, the most frequently mentioned were hypertension without heart involvement (7.7 per 100 persons), hayfever (5.7), and impairments of the back or spine (5.1). The most common communicable diseases reported to authorities in 1987 were scarlet fever, with 3,620 cases, and chickenpox, with 1,484, but the most fatal was AIDS (41 deaths). State mental health facilities served 8,389 patients in 1988, but the number of in-patients at the end of the year was only 260. Among persons 18 years old and over in 1984, 53 percent used alcohol, eight percent were heavy drinkers, 43 percent used drugs, and three percent were heavy drug users. The average adult male was 67.5 inches tall and weighed 159.5 lbs.; the average adult female was 62.6 inches and 127.9 lbs.

The major sources for data on vital statistics and health are the annual statistical reports of the Hawaii State Department of Health. Long-term trends are traced in Historical Statistics of Hawaii, Section 2. Sections 2 and 3 of the Statistical Abstract of the United States: 1989 contain similar data for the nation as a whole.

Table 44.-- BIRTHS AND DEATHS: 1970 TO 1988

Calendar year	Resident births 1/	Resident deaths 1/	Rates per 1,000 resident population 2/		Rates per 1,000 live births 3/		
			Births	Deaths	Illegitimate births	Fetal deaths 4/	Infant deaths 5/
1970 ...	16,361	3,971	21.2	5.1	95.8	20.6	19.1
1971 ...	15,780	4,130	19.7	5.2	88.4	23.5	16.0
1972 ...	15,364	4,245	18.5	5.1	93.0	22.8	17.5
1973 ...	15,328	4,356	18.0	5.1	104.0	16.4	13.7
1974 ...	15,472	4,286	17.8	4.9	108.8	16.3	16.0
1975 ...	15,689	4,272	17.7	4.8	123.2	18.9	13.7
1976 ...	16,292	4,349	18.0	4.8	125.0	20.8	11.2
1977 ...	16,874	4,349	18.4	4.7	143.3	21.6	12.3
1978 ...	16,717	4,508	17.9	4.8	160.1	13.5	12.0
1979 ...	17,513	4,791	18.4	5.0	163.5	13.1	10.9
1980 ...	18,129	4,903	18.7	5.1	175.6	15.3	10.8
1981 ...	18,174	4,927	18.5	5.0	181.8	13.1	10.5
1982 ...	18,675	5,123	18.7	5.1	186.3	12.7	8.9
1983 ...	19,090	5,409	18.7	5.3	197.8	11.4	10.0
1984 ...	18,667	5,571	18.0	5.4	191.8	9.5	10.9
1985 ...	18,267	5,751	17.4	5.5	201.3	9.7	9.1
1986 ...	18,253	5,788	17.2	5.4	203.9	11.0	9.2
1987 ...	18,555	6,149	17.1	5.7	213.7	9.2	8.8
1988 ...	18,937	5,970	17.2	5.4	223.3	10.8	7.4

1/ Events occurring in Hawaii. Data include births to military couples and deaths of armed forces and their dependents, but exclude nonresident births and deaths, as well as resident births and deaths occurring out of State.

2/ Based on estimates in present report, table 2.

3/ Place of occurrence basis.

4/ 20 weeks gestation and over. Includes elective abortions.

5/ Under 1 year of age.

Source: Hawaii State Department of Health, Statistical Report (annual), and records.

Table 45.-- BIRTHS AND DEATHS, BY MILITARY STATUS: 1987 AND 1988

[Place of occurrence basis]

Subject	All groups	Armed forces	Civilians 1/			Armed forces and dependents
			All civilians	Military dependents	Other civilians	
Live births:						
1987	18,698	-	18,698	3,966	14,732	3,966
1988	19,054	-	19,054	3,821	15,233	3,821
Deaths:						
1987	6,490	64	6,426	83	6,343	147
1988	6,315	60	6,255	90	6,165	150
Birth rates: 2/						
1987	15.6	0	16.4	61.2	13.7	32.3
1988	15.6	0	16.4	54.7	13.9	30.2
Death rates: 2/						
1987	5.4	1.1	5.6	1.3	5.9	1.2
1988	5.2	1.1	5.4	1.3	5.6	1.2

1/ Death rates for military dependents based on 1980 age and sex composition of military dependents and 1980 age-sex-specific death rates for all civilians. Deaths of civilians other than military dependents calculated as residual.

2/ Per 1,000 de facto population in each group, based on estimates in present report, tables 2 and 3.

Source: Hawaii State Department of Health, Office of Health Status Monitoring, records.

Table 46.-- LIVE BIRTHS, STANDARD FETAL DEATHS, AND ELECTIVE ABORTIONS: 1983 TO 1988

[Place of residence basis]

Calendar year	Total deliveries		Live births	Standard fetal deaths	Elective abortions
	Number	Rate 1/			
1983	26,709	26.2	19,090	1,627	5,992
1984	25,573	24.7	18,667	1,629	5,277
1985	25,335	24.1	18,267	1,473	5,595
1986	25,312	23.8	18,253	1,412	5,647
1987	25,931	24.0	18,555	1,405	5,971
1988	26,346	24.0	18,937	1,411	5,998

1/ Per 1,000 resident population, July 1. From present report, table 2.

Source: Hawaii State Department of Health, Annual Report, Statistical Supplement, 1983-1987, and records.

Table 47.-- BIRTHS AND DEATHS, BY PLACE OF OCCURRENCE AND RESIDENCE: 1986 TO 1988

Event and year	Occurring in Hawaii				Hawaii residents	
	Total	Resident	Non-resident	Not reported	Total	Out of State 1/
Births:						
1986 ...	18,341	18,253	86	2	18,277	24
1987 ...	18,698	18,555	143	-	18,595	40
1988 ...	19,054	18,937	115	2	18,964	27
Deaths:						
1986 ...	6,171	5,788	382	1	5,837	49
1987 ...	6,490	6,147	343	-	6,214	67
1988 ...	6,315	5,970	340	5	6,052	82

1/ Mainland U.S., U.S. territories and possessions, and Canada.

Source: Hawaii State Department of Health, Statistical Report, 1986 and 1987, and records.

Table 48.-- CHARACTERISTICS OF RESIDENT BIRTHS: 1985 TO 1988

[Excludes births to Hawaii residents occurring out of state]

Subject	1985	1986	1987	1988
Number of resident births	18,267	18,253	18,555	18,937
City and County of Honolulu	14,021	14,074	14,160	14,430
Percent on Oahu	76.8	77.1	76.3	76.2
Hawaii County	1,873	1,800	1,915	1,980
Kauai County	778	822	865	873
Maui County (incl. Kalawao)	1,595	1,557	1,615	1,654
Percent attended by M.D. or O.D. in hospital 1/	98.0	98.3	98.3	98.6
Males per 100 females	108.2	105.7	107.6	103.6
Median weight of single births (grams)	3,307	3,306	3,308	3,315
Percent low birth weight (under 2,500 grams)	6.6	6.1	7.2	6.9
Percent single births under 40 weeks gestation	51.3	51.3	52.2	51.1
Percent plural	1.8	2.0	2.4	1.8
Percent with 1 or more congenital malformations	1.0	1.1	1.4	3.2
Percent illegitimate	20.0	20.4	21.4	22.4
Percent with prenatal visit in first three months	74.7	76.4	73.9	71.6
Percent first child born to mother	31.9	31.6	29.7	30.3
Percent first child born alive to mother	41.7	42.5	41.3	42.1
Median age of mothers (years)	26	26	26.8	27.1
Median age of known fathers (years)	29	29	29.3	29.6

1/ Place of occurrence basis.

Source: Hawaii State Department of Health, Statistical Report (annual), and records.

Table 49.-- FERTILITY RATES, BY MILITARY STATUS: 1980 AND 1988

[Military dependents are included in the military category. For 1960 and 1970 data, see Data Book 1987, table 60]

Military status	Crude birth rate 1/		General fertility rate 2/		Total fertility rate 3/	
	1980	1988	1980	1988	1980	1988
Total	18.8	17.4	78.7	73.5	2,084	2,158
Civilian	16.5	15.7	68.9	66.5	1,871	2,013
Military	35.0	30.2	147.5	126.9	3,496	2,930

1/ Annual number of live births per 1,000 resident population.

2/ Annual number of live births per 1,000 women 15-44 years of age.

3/ Average number of children to whom 1,000 women would give birth according to a set of fertility rates providing the women survive the childbearing years.

Source: 1980 calculated by Eleanor C. Nordyke, East-West Population Institute; 1988 estimated by Hawaii State Data Center.

Table 50.-- RESIDENT BIRTHS, MIXED AND UNMIXED, BY MILITARY STATUS OF FATHER: 1988

Military status of father	Total births	Unmixed	Mixed 1/	Not certain 2/
All groups	19,054	8,473	9,305	1,276
Military	3,821	2,972	819	30
Civilian or not reported	15,233	5,501	8,486	1,246

1/ Includes all Part Hawaiian births, including those in which both parents were Part Hawaiian.

2/ One or both parents of unspecified race (unless one was Part Hawaiian) or both parents classified as "other."

Source: Hawaii State Department of Health, records.

Table 51.-- MOST COMMON FIRST NAMES ON BIRTH CERTIFICATES, BY SEX: 1988

[A total of 6,352 first names, including variant spellings, was reported for the 19,054 babies born in Hawaii in 1988]

Rank	Boys' names		Girls' names	
	Name	Number	Name	Number
1	Michael	198	Ashley	172
2	Joshua	190	Jessica	157
3	Christopher	184	Nicole	119
4	Matthew	163	Jennifer	106
5	Justin	156	Amanda	92
6	Ryan	140	Sarah	89
7	Brandon	125	Tiffany	75
8	James	122	Samantha	73
9	David	121	Lauren	69
10	Andrew	114	Chelsea	68

Source: Hawaii State Department of Health, special tabulation.

Table 52.-- MOST COMMON SURNAMES ON BIRTH AND DEATH CERTIFICATES: 1988

Rank	Birth certificates		Death certificates	
	Surname	Births	Surname	Deaths
1	Smith	100	Wong	40
2	Lee	81	Lee	39
3	Wong	79	Chang	38
4	Williams	66	Kim	27
5	Johnson	56	Young	27
6	Garcia	52	Chun	23
7	Kim	50	Higa	22
8	Miller	50	Yamamoto	21
9	Brown	48	Lau	20
10	Young	44	Silva	20
11	Jones	44	Lum	19

Source: Hawaii State Department of Health, special tabulation.

Table 53.-- SELECTED LIFE TABLE VALUES, BY SEX: 1984-1986

[For earlier years and rankings relative to other States, see Data Book 1987, tables 69 and 70]

Age in years (period of life between two exact ages stated)	Of 100,000 born alive				Average remaining lifetime at beginning of year of age 1/	
	Number living at beginning of year of age		Number dying during year of age			
	Male	Female	Male	Female	Male	Female
0-1	100,000	100,000	1,020	833	75.37	80.92
5-6	98,814	99,023	17	22	71.27	76.72
15-16........	98,573	98,831	57	31	61.43	66.85
25-26	97,650	98,453	117	36	51.96	57.09
35-36	96,469	98,013	134	67	42.53	47.32
45-46	94,660	96,998	281	162	33.24	37.76
55-56	90,060	94,310	719	430	24.64	28.67
65-66	80,321	88,116	1,387	923	16.95	20.29
75-76	61,250	75,146	2,492	1,946	10.53	12.83
85-86	31,274	49,110	(2/)	(2/)	5.56	6.73

1/ For males and females combined, the average remaining lifetime at birth was 77.98 years. For the entire United States in 1985, the corresponding figure was 74.7 years (71.2 years for males and 78.2 years for females).

2/ Not calculated for this and higher ages.

Source: Robert W. Gardner, East-West Population Institute, Complete Life Tables by Age and Sex for Hawaii, 1984-86 (unpublished, September 11, 1987); Statistical Abstract of the United States: 1989, p. 71.

Table 54.-- CHARACTERISTICS OF RESIDENT DEATHS: 1985 TO 1988

[Excludes deaths of Hawaii residents occurring out of state]

Subject	1985	1986	1987	1988
Number of resident deaths	5,751	5,788	6,147	5,970
City and County of Honolulu	4,294	4,248	4,534	4,304
Hawaii County	715	719	784	793
Kauai County	256	313	305	339
Maui County (incl. Kalawao)	486	508	522	534
Males per 100 females	146.3	138.0	144.4	145.1
Median age (years)	71.9	73.2	72.2	72.9
Centenarian deaths: Male	10	10	14	14
Female	23	19	21	24
Oldest (years): Male	114	106	107	102
Female	109	106	103	107
Percent married	47.5	47.0	46.9	48.2
Deaths under 1 year	159	168	164	131
Per 1,000 live births	8.7	9.2	8.8	7.4
Fetal deaths 1/	7,068	7,178	7,264	7,409
Per 1,000 deliveries	279	281	392	281
Fetal deaths, 20 or more weeks gestation 2/	177	202	183	205
Per 1,000 live births	9.7	11.0	9.2	10.8
Standard fetal deaths 3/	1,473	1,478	1,405	1,411
Elective abortions	5,595	5,700	5,971	5,998
Per 1,000 live births	306.3	312.3	321.8	314.8

1/ Includes elective abortions.

2/ Place of occurrence basis. Includes elective abortions if 20 weeks or more.

3/ Excludes elective abortions.

Source: Hawaii State Department of Health, Statistical Report (annual).

Table 55.-- CAUSE OF DEATH, BY SEX: 1988

[Place of residence basis]

Cause of death	Both sexes	Males	Females
Total deaths	5,970	3,534	2,436
Tuberculosis	15	11	4
Syphilis	-	-	-
Other infective	146	108	38
Malignant neoplasm	1,516	895	621
Digestive organs	523	324	199
Respiratory system	389	275	114
Breast	90	-	90
Genital organs	153	81	72
Urinary organs	51	35	16
Leukemia	48	31	17
Other	262	149	113
Diabetes mellitus	145	78	67
Heart disease	1,858	1,071	787
Rheumatic	29	10	19
Hypertensive	60	25	35
Ischemic	992	605	387
Other heart	777	431	346
Hypertension	12	6	6
Cerebrovascular disease	426	215	211
Arteriosclerosis	39	25	14
Aneurysm	-	-	-
Other circulatory	78	46	32
Influenza/pneumonia	198	120	78
Bronchitis/emphysema/asthma	60	33	27
Peptic ulcer	20	13	7
Cirrhosis of liver	75	54	21
Nephritis and nephrosis	41	25	16
Pregnancy, birth & puerperium	2	1	1
Congenital anomalies	50	32	18
Perinatal conditions	61	31	30
Ill-defined conditions	42	23	19
Other diseases	738	411	327
Accidents	281	210	71
Motor vehicles	142	104	38
Other	139	106	33
Suicide	103	83	20
Homicide & legal intervention	41	24	17
Other external causes	23	19	4

Source: Hawaii State Department of Health, Office of Health Status Monitoring, records.

Table 56.-- CATASTROPHIC MORTALITY: 1980 TO 1989

[Includes all accidents, natural disasters, and other events causing five or more deaths. Complete through October 30, 1989]

Date		Place	Kind of disaster	Deaths
1980:	Jan. 8-10	Oahu, Maui, Hawaii	Storm	7
	May 18	Molokai	Helicopter crash	7
1981:	Dec. 5	Pearl Harbor	Airplane crash	11
1982:	July 24	Near Wahiawa, Oahu	3-car auto crash	5
1983:	June 16	Honopu, Kauai	Airplane crash	14
1985:	Jan. 15	540 mi. N. of Honolulu	Helicopter crash	7
1987:	Dec. 23	At sea W. of Molokai	Airplane disappearance	8
1988:	June 9	Near Waimanalo, Oahu	2-car auto crash	5
	July 9	Near Kawaihae, Hawaii	2-car auto crash	6
1989:	Jan. 31	Texas	Crash of Hawaii-bound airplane	19
	Feb. 24	100 mi. S. of Honolulu	Airplane door lost	9
	June 11	Waimanu, Hawaii	Airplane crash	11
	Oct. 28	Halawa, Molokai	Airplane crash	20

Source: Robert C. Schmitt, "Catastrophic Mortality in Hawaii: An Update," The Hawaiian Journal of History, Vol. 23 (1989), pp. 217-227; DBED file of newspaper accounts.

Table 57.-- DEATHS OCCURRING IN HAWAII, BY METHOD OF DISPOSITION: 1983 TO 1988

Method	1983	1984	1985	1986	1987	1988
All methods	5,725	5,942	6,116	6,171	6,490	6,315
Burial	2,513	2,517	2,610	2,512	2,690	2,543
Cremation	2,588	2,808	2,886	3,002	3,185	3,145
Removal	594	587	586	614	565	591
Entombment	25	26	27	41	39	29
Educational purpose	-	-	-	-	-	-
Other	3	-	-	-	-	-
Unknown	2	4	7	2	11	7

Source: Hawaii State Department of Health, Statistical Report for 1983-1987, and records.

Table 58.-- PERCENT OF ADULT POPULATION AFFECTED BY SPECIFIED HEALTH RISK FACTORS, BY SEX AND ISLANDS: 1987

[Excludes inmates of institutions, armed forces living on military bases, and all persons less than 18 years old]

Health risk factor	State	Island		Sex	
		Oahu	Others	Male	Female
Seatbelt nonuse	7.3	5.9	12.2	9.1	5.6
Current hypertension	15.7	15.7	15.7	15.2	16.1
Sedentary lifestyle	51.7	51.6	52.0	45.3	57.9
Obesity	18.1	17.5	20.3	21.3	15.0
Smoking	22.3	21.4	25.5	23.6	21.1
Acute drinking	22.6	21.2	27.7	35.3	10.2
Heavier drinking	8.9	7.4	13.9	15.2	2.7
Drinking and driving	3.7	3.0	6.2	5.5	1.9

Source: Hawaii State Department of Health, Health Promotion and Education Office, HPEO Report - 1987 Statistical Annual Report, tables 2 and 3.

Table 59-- CHOLESTEROL LEVELS OF PERSONS SCREENED BY THE STATE DEPARTMENT OF HEALTH: NOVEMBER 1986 TO MAY 1988

Cholesterol level (mgm/dl)	Number	Percent
All persons screened	9,440	100.0
Normal (under 200)	4,311	45.7
Borderline (200 to 239)	2,957	31.3
High (240 and over)	2,172	23.0

Source: Hawaii State Department of Health, Chronic Disease Branch, records.

Table 60.-- PERSONS ON THE STATE BLIND REGISTER, BY COUNTIES: 1987 AND 1988

Date	State total	City and Co. of Honolulu	County of Hawaii	County of Kauai	County of Maui
1987: June 30	2,008	1,643	147	66	152
1988: June 30	2,121	1,730	156	73	162

Source: Hawaii State Department of Social Services and Housing, Services for the Blind Branch, records.

Table 61-- EYEGLASS WEARERS, FOR OAHU: 1988

Type of eyeglasses	Percent
Persons surveyed	100
Eyeglasses	60
Contact lenses	6
Both	4
Neither	30

Source: Survey by East West Research Institute, cited in Honolulu Advertiser, May 23, 1988, p. A-2.

Table 62.-- CHRONIC CONDITIONS: 1986

Selected chronic conditions	Prevalence of condition	Conditions per 1,000 persons
Heart condition	20,065	19.6
Impairment of back or spine	52,127	50.9
Hypertension without heart involvement	78,942	77.1
Arthritis/rheumatism	31,597	30.8
Hearing impairment	34,866	34.0
Asthma with or without hayfever	35,311	34.5
Diabetes	18,618	18.2
Mental and nervous condition	11,669	11.4
Visual impairment	11,194	10.9
Malignant neoplasms	6,577	6.4
Chronic and allergic skin conditions	44,704	43.6
Chronic sinusitis	26,363	25.7
Hayfever without asthma	58,149	56.8
Stomach ulcer	5,978	5.8
Bronchitis/emphysema	15,738	12.8
Benign and unspecified neoplasms	4,219	4.1
Hemorrhoids	11,348	11.1
Thyroid/goiter	7,995	7.8
Varicose veins	7,097	6.9
Gout	13,583	13.3

Source: Hawaii State Department of Health, Hawaii Health Surveillance Program, special tabulation.

Table 63.-- LIMITATION OF ACTIVITY DUE TO CHRONIC OR ACUTE CONDITIONS: 1986

Type of limitation	Number
Persons with one or more chronic conditions	378,440
No limitation of activity	313,730
Limited, but not in major activity	26,073
Limited in amount or kind of activity	18,797
Unable to carry on major activity	10,893
Restricted days in past 12 months 1/	12,697,600
Per person 2/	12.4

1/ A restricted activity day is one in which a person had to cut down on his usual activity for all or most of the day.

2/ Base includes persons without chronic or acute conditions or restricted activities.

Source: Hawaii State Department of Health, Hawaii Health Surveillance Survey Program, special tabulations.

Table 64.-- ACUTE CONDITIONS: 1986

Condition	Incidence of condition per year	Conditions per 100 persons per year
All acute conditions	2,151,954	210.2
Infective parasitic diseases	142,326	13.9
Respiratory condition	1,510,339	147.5
Digestive system condition	47,658	4.6
Injuries	189,045	18.5
All other acute conditions	262,586	25.6

Source: Hawaii State Department of Health, Hawaii Health Surveillance Program, special tabulation.

Table 65.-- SPECIFIED COMMUNICABLE DISEASES: 1986 TO 1988

Disease	Cases			Deaths		
	1986	1987	1988	1986	1987	1988
All reportable diseases ..	9,762	8,152	9,657	39	71	62
AIDS	58	79	114	27	41	43
Chickenpox	1,386	1,484	840	-	-	-
Gonorrhea	1,619	1,159	875	-	-	-
Hansen's Disease 1/	37	25	20	-	-	-
Hepatitis, all types	101	110	127	2	13	4
Influenza	316	332	660	3	5	-
Leptospirosis 2/	15	24	67	-	-	-
Malaria 3/	1	3	10	-	1	-
Measles (Rubeola)	37	5	17	-	-	-
Meningitis, all types	222	137	170	-	-	-
Mumps	24	12	24	-	-	-
Rubella	8	32	33	-	-	-
Salmonellosis	428	475	508	1	-	-
Scarlet fever, other strep. ...	4,892	3,620	5,671	-	-	-
Syphilis	56	64	122	-	-	-
Tuberculosis	180	195	171	6	11	15
All others	382	396	228	-	-	-

1/ Excludes reinstated cases.
2/ Includes previously unreported cases.
3/ Acquired outside the State.
Source: Hawaii State Department of Health, Statistical Report, 1988.

Table 66.-- ALCOHOL AND DRUG USE BY PERSONS 18 YEARS AND OVER, BY SEX: 1984

[Percent distributions. Based on a sample survey of 2,505 persons on the four largest islands]

Use	Alcohol 1/			Drugs 2/		
	Both sexes	Male	Female	Both sexes	Male	Female
Total	100.0	100.0	100.0	100.0	100.0	100.0
None 3/	47.3	32.3	56.4	57.0	55.7	57.8
Light	24.4	21.8	26.4	6.5	8.1	5.2
Moderate	12.9	17.5	9.4	30.8	29.9	31.7
Moderately heavy	7.3	11.5	4.1	2.6	2.7	2.5
Heavy	8.1	13.9	3.7	3.1	3.5	2.8

1/ Based on total ethanol consumption.

2/ Based on frequency of use, weighted by degree of danger to users, for marijuana/hashish, tranquilizers, barbituates, inhalants, LSD, PCP, cocaine, amphetamines, heroin, and morphine/codeine/percodan/demoral.

3/ For alcohol use, includes both non-drinkers and infrequent drinkers.

Source: Jonathan S. Raymond, Sharon Murakami, and Frank Ahern, Toward an Epidemiology of Mental Health and Alcohol and Drug Use in Hawaii (September 1985), tables 7 and 11.

Table 67-- ESTIMATED HEALTH AND ECONOMIC COSTS OF SMOKING: 1985

Subject	Amount
Adult deaths attributable to smoking	753
Years of potential life lost	2,182
Annual economic cost of smoking (million dollars)	170.7
Hospitalization and other direct health care costs	88.1
Lost wages and decreased productivity	82.6
Perinatal deaths due to maternal smoking	12

Source: Hawaii State Department of Health, "The Health and Economic Impact of Smoking in Hawaii," R & S Report, No. 59 (November 1988).

Table 68.-- NUMBER AND BED CAPACITY OF HOSPITALS AND CARE HOMES, BY TYPE OF FACILITY: 1980 TO 1989

[Includes Tripler Army Medical Center]

Category and year	Hospitals				Care homes	
	Total 1/	Acute care	Long-term care	Specialty care	Family 2/	Residential 3/
Number of facilities:						
1980	49	25	33	8	281	15
1981	49	25	34	9	278	14
1982	49	25	34	9	280	15
1983	45	23	34	9	282	16
1984	48	24	32	10	272	16
1985	47	23	32	10	299	16
1986	48	23	33	9	633	17
1987	51	23	36	9	633	17
1988	51	22	36	9	531	16
1989	52	22	38	8	515	16
Number of beds:						
1980	6,416	2,886	2,656	874	1,042	490
1981	6,488	2,925	2,670	893	1,055	500
1982	6,424	2,875	2,668	881	1,098	516
1983	6,379	2,848	2,640	891	1,096	549
1984	6,512	2,896	2,648	967	1,082	549
1985	6,504	2,894	2,650	960	1,258	559
1986	6,595	2,870	2,769	956	2,547	540
1987	6,820	2,887	2,977	956	2,547	540
1988	6,671	2,855	2,995	821	2,235	490
1989	6,854	2,855	3,191	808	2,184	481

NA Not available.

1/ Institutions providing more than one kind of care are only counted once.

2/ Four or fewer beds. Since 1987, Type I care homes consisting of five beds or less.

3/ Five or more beds. Since 1987, category changed to Type II care homes consisting of more than five beds.

Source: Hawaii State Department of Health, Statistical Report (annual); State Health Planning and Development Agency, records; Hospital and Medical Facilities Branch, records.

Table 69.-- OCCUPANCY CHARACTERISTICS OF ACUTE AND LONG-TERM CARE CIVILIAN HOSPITALS: 1980 TO 1988

[Excludes Tripler Army Medical Center]

Type of facility and year	Beds 1/	Admissions	Average daily census	Average length of stay (days)	Average daily percent occupancy
Acute care:					
1980	2,359	117,404	2,047	6.4	70.9
1981	2,366	99,247	1,675	6.2	71.0
1982	2,366	102,374	1,728	6.2	73.0
1983	2,387	102,331	1,654	5.9	69.3
1984	2,385	96,530	1,558	5.9	65.3
1985	2,361	84,473	1,566	6.8	66.3
1986 2/	2,378	91,704	1,586	6.3	66.7
1987	2,346	93,256	1,661	6.5	70.8
1988 2/	2,835	117,548	2,074	6.4	73.3
Long-term care:					
1980	2,670	2,653	2,391	328.9	90.0
1981	2,668	2,478	2,487	366.4	93.2
1982	2,640	2,498	2,523	368.7	95.6
1983	2,648	2,574	2,519	357.3	95.2
1984	2,650	2,606	2,552	357	96.3
1985	2,769	2,575	2,590	367	93.5
1986 2/	2,977	2,901	2,602	327	87.4
1987	2,995	2,553	2,779	397	92.8
1988 2/	3,187	2,746	2,907	376	91.7

NA Not available.
1/ Civilian bed count of succeeding year.
2/ Excludes statistics for Lanai.
Source: Hawaii State Department of Health, Statistical Report (annual); State Health Planning and Development Agency, records.

Table 70.-- NUMBER AND BED CAPACITY OF HOSPITALS, BY TYPE OF FACILITY, BY ISLANDS: 1989

[Except for Tripler Army Medical Center, data are for facilities recognized by the Hawaii State Health Planning and Development Agency]

Category and island	Hospitals				Care homes	
	Total 1/	Acute care 2/	Long-term care	Specialty care	Type I 3/	Type II 4/
NUMBER OF FACILITIES						
State total ..	53	22	38	9	515	15
Oahu	33	10	23	7	422	11
Hawaii	6	4	6	-	53	1
Kauai	5	3	5	-	29	3
Maui	4	3	2	1	18	-
Molokai	2	1	1	1	9	1
Lanai	1	1	1	-	-	-
NUMBER OF BEDS						
State total ..	6,671	2,855	3,191	808	2,184	481
Oahu	5,120	2,336	1,985	799	1,817	406
Hawaii	667	240	427	-	207	13
Kauai	328	114	214	-	102	57
Maui	498	151	339	8	75	-
Molokai	44	8	22	14	34	14
Lanai	14	6	8	-	-	-

1/ Institutions providing more than one kind of care are counted only once.

2/ Includes Tripler Army Medical Center which had a bed capacity of 509 (plus 52 nursery beds).

3/ Five beds or less.

4/ More than five beds.

Source: Hawaii State Department of Health, Annual Summary of Acute, Long Term Care and Specialty Hospital Utilization, 1988; State Health Planning and Development Agency.

Table 71.-- OCCUPANCY CHARACTERISTICS OF ACUTE AND LONG-TERM CARE CIVILIAN HOSPITALS, BY ISLANDS: 1988

[Includes Tripler Army Medical Center]

Type of facility and island	Admissions	Average daily census	Average length of stay (days)	Average daily percent occupancy
ACUTE CARE				
State total	117,531	2,073	6.4	73.1
Oahu	92,930	1,742	6.8	75.1
Hawaii	11,076	159	5.2	67.8
Kauai	5,152	61	4.3	53.4
Maui	8,181	110	4.9	72.6
Molokai	192	1	2.8	18.4
Lanai	(NA)	(NA)	(NA)	(NA)
LONG-TERM CARE				
State total	2,743	2,900	385.9	90.9
Oahu	1,615	1,992	434	91.4
Hawaii	430	381	324	92.3
Kauai	282	184	236	86.9
Maui	292	328	410	97.0
Molokai	124	15	45	70.1
Lanai	(NA)	(NA)	(NA)	(NA)

NA Not available.

Source: Data by islands from Hawaii State Department of Health, State Health Planning and Development Agency, Annual Summary of Acute, Long Term Care and Specialty Hospital Utilization By County, 1988.

Table 72.-- COMMUNITY HOSPITAL AVERAGE COSTS AND ROOM CHARGES: 1982 TO 1988

Year	Average length of stay (days)	Average cost to hospital		Hospital semiprivate room charges 1/ (dollars)
		Per in-patient day (dollars)	Per admission (dollars)	
1982	8.3	307.30	2,551	176.24
1983	8.2	357.87	2,964	215.84
1984	8.3	383.05	3,186	224.31
1985	8.3	420.11	3,522	230.82
1986	7.5	489.93	3,707	252.89
1987	7.9	512.48	4,106	241.72
1988	(NA)	(NA)	(NA)	257.25

NA Not available.

1/ January data, except 1983, which refers to July.

Source: Health Insurance Association of America, Source Book of Health Insurance Data (biennial) and Update (biennial).

Table 73.-- PATIENTS SERVED BY STATE MENTAL HEALTH FACILITIES: 1983 TO 1988

Year	Patients active, end of period			Admissions		Terminations	Patients served (undup.)
	Total	In-patients	Out-patients	Total	Unduplicated		
1983	6,022	303	5,719	4,761	4,112	5,030	9,970
1984 1/ ...	5,692	337	5,355	4,307	3,845	4,887	9,724
1985	6,328	251	6,077	3,933	3,268	4,221	8,891
1986	5,852	252	5,600	3,826	3,292	3,725	8,342
1987	5,754	248	5,506	3,678	3,122	3,452	8,220
1988	5,234	260	4,974	3,694	3,147	4,143	8,389

1/ Year ended June 30.

Source: Hawaii State Department of Health, Statistical Report (annual) and records.

Table 74.-- HAWAII STATE HOSPITAL BEDS AND OCCUPANCY: 1985 TO 1989

Year	Number of beds, June 30	Admissions 1/		Patients in hospital 2/	
		Total	First	Average 1/	June 30
1985	220	647	514	220	224
1986 3/ ..	240	738	611	263	272
1987 3/ ..	240	776	614	254	223
1988 3/ ..	240	811	651	241	210
1989 3/ ..	240	863	711	242	238

1/ Year ended June 30.
2/ Includes patients on leave and absent without leave.
3/ Includes children's unit at Leahi Hospital assigned to the Hawaii State Hospital effective July 1, 1985.
Source: Hawaii State Hospital, records.

Table 75.-- WAIMANO TRAINING SCHOOL AND HOSPITAL: 1985 TO 1989

[Waimano Training School and Hospital is the State institution for the mentally retarded]

Year	Beds, June 30	Admissions 1/	Patients in residence		Patients on leave, June 30
			Average 2/	June 30	
1985	410	2	354	360	586
1986	410	-	331	333	593
1987	285	-	266	260	575
1988	285	2	225	199	3/ 3
1989	205	-	183	165	3/ 4

1/ Year ended June 30. Excluding returns from community placement.
2/ Year ended June 30.
3/ Reflects effect of deinstitutionalization of the facility; placement into community-based ICF/MR.
Source: Hawaii State Department of Health, Statistical Report (annual); Waimano Training School and Hospital, records.

Table 76.-- HANSEN'S DISEASE PATIENTS REGISTERED: 1984 TO 1988

Subject	1984	1985	1986	1987	1988
Patients on register, Dec. 31 ..	661	651	653	633	571
Medically released	661	651	653	633	571
At home	555	546	549	532	474
Kalaupapa	101	101	99	97	93
Hale Mohalu or Leahi	5	5	5	4	4
New cases	43	31	37	24	20
Deaths	15	10	4	6	13

Source: Hawaii State Department of Health, Statistical Report, 1988.

Table 77.-- PHYSICIANS, DENTISTS, NURSES, AND PHARMACISTS LICENSED IN HAWAII, BY PLACE OF ADDRESS: MARCH 7, 1989

Place of address	Physicians and surgeons 1/	Dentists	Registered nurses	Pharmacists
Total licensed	4,143	1,162	10,930	875
Hawaii addresses ...	2,425	882	8,218	516
Hawaii	187	78	633	45
Maui	170	55	579	37
Lanai	1	1	8	1
Molokai	8	4	31	2
Oahu	1,965	715	6,662	407
Kauai	94	29	305	24
Niihau	-	-	-	-
Out of State	1,718	280	2,712	359

1/ Permanent licenses only. Does not include interns, residents, or physicians who provided State government services only.

Source: Hawaii State Department of Commerce and Consumer Affairs, Professional and Vocational Licensing Division, Licensing Branch, records.

Table 78.-- MARRIAGES AND DIVORCES: 1970 TO 1988

[Place of occurrence basis]

Calendar year	Marriages		Divorces and annulments 2/	Rates per 1,000 resident population		Percent of marriages	
	Total	Resident 1/		Resident marriages	Divorces, annulments 2/	Nonresident 3/	Interracial 4/
1970 ...	10,599	7,889	2,589	10.2	3.4	25.6	40.7
1971 ...	9,734	8,104	3,691	10.1	4.6	16.7	42.7
1972 ...	9,750	8,482	3,891	10.2	4.7	13.0	41.7
1973 ...	9,776	8,656	4,170	10.2	4.9	11.5	43.7
1974 ...	9,649	8,500	4,111	9.8	4.7	11.9	43.2
1975 ...	9,673	8,440	4,265	9.5	4.8	12.7	43.1
1976 ...	9,769	8,318	4,712	9.2	5.2	14.9	43.2
1977 ...	10,266	8,427	4,601	9.2	5.0	17.9	43.3
1978 ...	10,736	8,650	4,837	9.3	5.2	19.4	44.5
1979 ...	11,678	9,424	5,055	9.9	5.3	19.3	44.6
1980 ...	11,856	9,442	4,438	9.7	4.6	20.4	44.4
1981 ...	12,218	9,445	4,253	9.6	4.3	22.7	44.5
1982 ...	13,483	10,053	4,233	10.1	4.2	25.4	45.0
1983 ...	14,062	10,216	4,583	10.0	4.5	27.3	45.5
1984 ...	14,982	10,020	4,769	9.7	4.6	33.3	46.3
1985 ...	15,421	9,893	4,887	9.4	4.7	35.8	46.9
1986 ...	16,219	9,571	4,674	9.0	4.4	30.4	46.5
1987 ...	16,567	9,714	4,419	9.0	4.1	41.3	44.6
1988 ...	17,281	9,708	5,020	8.8	4.6	43.8	42.9

1/ One or both partners residents of Hawaii.

2/ Final decrees only. An interlocutory decree of six months was abolished July 1, 1971.

3/ Both partners nonresidents of Hawaii.

4/ Excludes nonresident marriages.

Source: Hawaii State Department of Health, Statistical Report (annual), and records.

Table 79.-- CHARACTERISTICS OF MARRIAGES AND DIVORCES: 1985 TO 1988

[Place of occurrence basis]

Subject	1985	1986	1987	1988
MARRIAGES				
Number	15,421	16,219	16,567	17,281
Percent on Oahu	64.5	62.0	61.4	58.8
Percent Hawaii residents:				
Both bride and groom	59.4	54.6	54.5	52.2
One partner only	4.7	4.4	4.2	4.0
Neither bride nor groom	35.8	41.0	41.3	43.8
Median age (years):				
Groom	29.9	30.6	30.7	31
Bride	27.8	28.1	28.4	28
Percent previously married:				
Groom	39.3	40.4	39.6	40.4
Bride	39.1	39.6	39.0	39.8
DIVORCES AND ANNULMENTS				
Number	4,887	4,674	4,419	5,020
Divorces	4,875	4,652	4,404	5,005
Annulments	12	19	15	14
Not reported	-	3	-	1
Percent occurring on Oahu	77.2	76.2	75.3	79.8
Percent Hawaii residents:				
Both partners	75.3	74.4	75.0	76.1
One partner only	24.7	25.4	24.7	23.6
Neither partner	-	0.1	0.2	0.3
Median age (years):				
Husband	34.3	34.3	35.2	34.9
Wife	32.0	32.1	32.7	32.6
Percent interracial 1/	39.0	38.2	38.9	40.5
Percent with children under 18 years	55.6	53.2	51.8	52.2
Median years married	6.3	6.4	6.4	6.6

1/ For these calculations, marriages where both bride and groom are in the "Part Hawaiian" or "Other races" categories are classified as non-interracial.

Source: Hawaii State Department of Health, Statistical Report (annual), and records.

Table 80.-- MARRIAGES OCCURRING IN HAWAII, RESIDENT AND NONRESIDENT, BY RACE MIXTURE AND TYPE OF CEREMONY: 1988

Race mixture and type of ceremony	Total	At least one partner Hawaii resident	Both partners nonresidents
All marriages	17,281	9,709	7,572
Race of partners:			
Both partners same race ..	12,276	5,539	6,937
Different	5,005	4,170	625
Percent different	29.0	42.9	8.4
Type of ceremony:			
Civil ceremony	4,811	3,787	1,024
Religious ceremony	12,470	5,922	6,548

Source: Hawaii State Department of Health, special tabulations.

Table 81.-- MARITAL DISSOLUTION: 1970 TO 1987

Subject	1970	1980	1987	Percent		
				1970	1980	1987
Married couples 1/	154,678	185,698	233,662	100.0	100.0	100.0
Marriages ended	4,466	6,782	7,260	2.9	3.7	3.1
By divorce	2,589	4,438	4,419	1.7	2.4	1.9
By death	1,877	2,344	2,841	1.2	1.3	1.2
Husbands	1,312	1,678	2,036	0.8	0.9	0.9
Wives	565	666	805	0.4	0.4	0.3

1/ Figure for 1987 refers to number of married women, except separated.

Source: Hawaii State Department of Health, Statistical Report (annual); U.S. Bureau of the Census, 1970 Census of Population, PC(1)-C13, table 52, and 1980 Census of Population, PC80-1-B13, table 21; Data Book 1988, table 38.

Table 82.-- HEIGHT AND WEIGHT OF PERSONS 18 YEARS OLD AND OVER, BY SEX: 1975-1980

[Based on a sample of approximately 48,000 Hawaii residents 18 years old and over. Height and weight values are those reported by respondents; inclusion or exclusion of clothing or shoes not specified. Fractional values of 1/2 and over have been rounded upward. For further information, see Data Book 1984, tables 104-107]

Centile	Height (inches)		Weight (pounds)	
	Men	Women	Men	Women
10th	63.1	59.3	126.4	100.8
50th (median)	67.4	62.4	158.3	123.8
90th	72.1	66.5	199.5	166.9
Average	67.5	62.6	159.5	127.9

Source: Hawaii State Department of Health, Hawaii Health Surveillance Program, special tabulations.

Section 3

EDUCATION

This section presents statistics on enrollment in public and private schools, colleges and universities; students graduated and degrees awarded; the highest grade of school completed; achievement test results; school facilities, personnel, and expenditures; and libraries.

Enrollment in elementary, intermediate and high schools in 1988-1989 totaled 203,000, slightly more than in the preceding year but well below the all-time high of 216,000 reached in 1971-1972. There were 235 public schools with 8,973 classroom teachers and 168,000 students (82.6 percent of the total). There were also 141 private schools with 2,512 teachers and over 35,000 pupils. Students graduating from public and private high schools in 1987-1988 numbered 13,448. Some 52,400 students attended colleges and universities in the State in 1988-1989, including 18,500 on the Manoa Campus of the University of Hawaii, 500 at West Oahu College, 3,600 at UH-Hilo, 20,200 at six community colleges, and 9,600 in four private colleges and universities. Ninety-two percent of the children 5 and 6 years old were in school in 1980 (compared with 87 percent in 1970), and 47 percent in the 18- and 19-year-old group were enrolled (compared with 53 percent a decade earlier). The expenditure per pupil in public schools rose from $1,884 in 1977-1978 to $3,950 in 1987-1988. In scholastic aptitude tests, Hawaii students scored somewhat above national norms in the math component but considerably below in the verbal component. Among adults, an estimated 19 percent were functionally illiterate in English as of 1988. More than one-fifth of all residents 25 years of age or more have completed four or more years of college. The Hawaii State Library System, with 49 locations on six islands, had 2.2 million books, 8,500 periodical subscriptions, and 74,000 phonodisks and phonotapes in 1988, with an annual circulation of 6.6 million. The University of Hawaii libraries in the same year counted 2.7 million volumes.

The principal sources of data on education are the U.S. Bureau of the Census, Hawaii State Department of Education, University of Hawaii, and private colleges and universities. Historical Statistics of Hawaii, Section 9, contains Island data back to 1820. Section 4 of the Statistical Abstract of the United States: 1989 presents comparable information for the nation as a whole.

Table 83.-- SCHOOL ENROLLMENT BY AGE: 1970 AND 1980

Age	Number enrolled in school		Percent enrolled in school	
	1970	1980	1970	1980
Persons 3 years old and over enrolled in school .	238,925	266,181	...	...
3 and 4 years old	7,097	11,436	24.5	39.0
5 and 6 years old	27,683	26,070	87.4	92.0
7 to 13 years old	108,757	102,604	96.7	98.9
14 and 15 years old	30,409	31,741	95.8	98.6
16 and 17 years old	26,362	31,711	90.8	93.4
18 and 19 years old	14,486	16,869	53.1	46.9
20 and 21 years old	7,672	11,164	22.4	25.6
22 to 24 years old	6,357	10,907	13.6	17.5
25 to 34 years old	6,942	15,254	6.4	8.5
35 years old and over	3,160	8,425	...	...

Source: U.S. Bureau of the Census, 1970 Census of Population, General Social and Economic Characteristics, Hawaii, PC(1)-C13 (December 1971), table 51; 1980 Census of Population, General Social and Economic Characteristics, Hawaii, PC80-1-C-13 (June 1983), table 66.

Table 84.-- PERCENT ENROLLED IN SCHOOL, FOR SELECTED AGE GROUPS, BY COUNTIES: 1980

County	5 and 6 years	7 to 13 years	14 and 15 years	16 and 17 years	18 and 19 years	20 and 21 years
State total	92.0	98.9	98.6	93.4	46.9	25.6
Hawaii	90.3	99.1	98.0	94.2	51.3	27.8
Honolulu	92.2	98.9	98.6	93.6	46.7	26.5
Kauai	94.9	98.9	100.0	95.0	52.0	18.1
Maui	90.9	98.9	98.4	90.3	40.7	11.5

Source: U.S. Bureau of the Census, 1980 Census of Population, General Social and Economic Characteristics, Hawaii, PC80-1-C-13 (June 1983), tables 66 and 175.

Table 85.-- YEARS OF SCHOOL COMPLETED BY PERSONS 25 YEARS OLD AND OVER: 1950 TO 1980

Years completed	1950	1960	1970	1980
Percent high school graduates	31.6	46.1	61.9	73.8
Percent 4 years or more of college	6.1	9.0	14.0	20.3

Source: Robert C. Schmitt, Historical Statistics of Hawaii (1977), p. 227; U.S. Bureau of the Census, 1980 Census of Population, General Social and Economic Characteristics, Hawaii, PC80-1-C-13 (June 1983), table 61.

Table 86.-- YEARS OF SCHOOL COMPLETED BY PERSONS 25 YEARS OLD AND OVER: ANNUAL AVERAGES, 1983-85 AND 1986-88

[Based on pooled samples of 1,730 households (5,288 persons of all ages) for 1983-1985 and 1,512 households (4,540 persons) for 1986-1988]

Years of school completed	1983-1985	1986-1988
Persons 25 years and over	592,963	668,007
None	7,030	7,666
Elementary	68,995	71,447
High school, 1 to 3 years	59,085	58,346
High school, 4 years	220,321	248,283
College, 1 to 3 years	109,846	138,974
College, 4 years	79,102	84,396
College, 5 or more years	48,584	58,896
Median (years)	12.8	12.8

Source: U.S. Bureau of the Census for the U.S. Bureau of Labor Statistics, Current Population Survey (March), annual, 1983 to 1988; machine-readable data file, special tabulation by Hawaii State Data Center.

Table 87.-- LITERACY IN ENGLISH: NOV. 1988-JAN. 1989

[Based on results of a test given to a sample of 814 Hawaii residents 18 years and over]

Characteristic	Estimated population 18 and over	Functional level 1/ (percent)		
		1	2	3
State total	796,001	2/ 19	28	53
County of residence:				
Honolulu	623,524	15	26	59
Hawaii	75,783	37	34	29
Maui	63,240	36	34	30
Kauai	33,454	26	32	42
Age:				
18 to 34 years	326,232	13	26	61
35 to 49 years	228,353	14	27	59
50 to 64 years	119,628	25	30	45
65 years and over	121,788	42	30	28
Sex:				
Male	392,747	19	30	52
Female	403,254	20	26	54
Years of school completed:				
Less than 9 years	54,924	77	21	2
9 to 11 years	81,192	54	35	11
12 years or more	659,885	6	21	73

1/ Level 1 refers to "adults who function with difficulty," that is, those who are "functually illiterate." Level 2 refers to "functional adults." Level 3 includes adults classified as "competent" or "proficient."

2/ Estimated at 153,664.

Source: Omnitrack Research and Marketing Group, Inc., for the Governor's Office of Children and Youth, Governor's Council on Literacy, Hawaii Statewide Literacy Assessment (HSLA), November 1988-January 1989 (1989), tables 1, 1a, 2, and 6.

Table 88.-- SCHOOLS, TEACHERS, ENROLLMENT, AND HIGH SCHOOL GRADUATES, FOR PUBLIC AND PRIVATE SCHOOL SYSTEMS: 1978-1979 TO 1988-1989

School year	Schools 1/			Teachers 1/		
	Total	Public	Private	Total	Public 2/	Private 3/
1978-79 ...	365	229	136	9,815	7,930	1,885
1979-80 ...	369	229	140	10,125	8,066	2,059
1980-81 ...	371	230	141	10,324	8,113	2,211
1981-82 ...	376	230	146	10,447	8,139	2,308
1982-83 ...	373	233	140	10,302	8,083	2,219
1983-84 ...	374	233	141	10,344	7,997	2,347
1984-85 ...	372	231	141	10,453	8,060	2,393
1985-86 ...	373	232	141	10,677	8,221	2,456
1986-87 ...	377	232	145	10,788	8,244	2,544
1987-88 ...	369	231	138	11,168	8,632	2,536
1988-89 ...	376	235	141	11,485	8,973	2,512

School year	Enrollment or membership 1/			High school graduates		
	Total	Public 4/	Private 5/	Total	Public	Private
1978-79 ...	206,812	170,515	36,297	14,097	11,637	2,460
1979-80 ...	205,580	168,393	37,187	14,013	11,493	2,520
1980-81 ...	202,972	165,094	37,878	14,647	12,088	2,559
1981-82 ...	200,844	162,805	38,039	13,948	11,563	2,385
1982-83 ...	200,129	162,024	38,105	13,248	10,757	2,491
1983-84 ...	200,240	162,241	37,999	12,992	10,454	2,538
1984-85 ...	200,869	163,860	37,009	12,516	10,092	2,424
1985-86 ...	200,952	164,169	36,783	12,468	9,958	2,510
1986-87 ...	201,188	164,640	36,548	13,097	10,491	2,606
1987-88 ...	202,419	166,240	36,179	13,448	10,800	2,648
1988-89 ...	203,358	167,899	35,459	(NA)	(NA)	(NA)

NA Not available.

1/ September data for all years.

2/ Special schools excluded for 1978-1979 but included beginning 1979-1980.

3/ Includes special schools for all years.

4/ Includes special schools; excludes pre-kindergarten prior to 1980-1981.

5/ Includes special schools and pre-kindergarten for all years.

Source: Hawaii State Department of Education, records.

Table 89.-- SCHOOLS, TEACHERS, AND ENROLLMENT, SEPTEMBER 13, 1988, AND HIGH SCHOOL GRADUATES, 1987-1988, FOR PUBLIC AND PRIVATE SCHOOL SYSTEMS, BY ISLANDS

Island	Number of schools, September 13, 1988			Number of teachers, September 13, 1988		
	Total	Public	Private	Total	Public	Private
State total	376	235	141	11,485	8,973	2,512
Hawaii	47	31	16	1,421	1,230	191
Maui	35	22	13	875	749	126
Lanai	1	1	-	31	31	-
Molokai	7	5	2	99	94	5
Oahu	265	163	102	8,496	6,370	2,126
Kauai	20	12	8	561	497	64
Niihau	1	1	-	2	2	-
Other islands 1/	-	-	-	-	-	-

Island	Enrollment, September 13, 1988			High school graduates, 1987-1988 school year		
	Total	Public	Private	Total	Public	Private
State total	203,358	167,899	35,459	13,448	10,800	2,648
Hawaii	25,179	22,922	2,257	1,554	1,400	154
Maui	16,423	14,572	1,851	985	855	130
Lanai	460	460	-	38	38	-
Molokai	1,683	1,656	27	107	106	1
Oahu	149,574	119,053	30,521	10,132	7,769	2,363
Kauai	10,007	9,204	803	632	632	-
Niihau	32	32	-	-	-	-
Other islands 1/	-	-	-	-	-	-

Source: Hawaii State Department of Education, records.

Table 90.-- PUBLIC AND PRIVATE SCHOOL ENROLLMENT, BY GRADES: 1983 TO 1988

[September data]

Grade	1983	1984	1985	1986
All grades	200,240	200,869	200,952	201,188
Nursery	3,354	2,767	2,774	2,796
Kindergarten	15,390	15,980	16,362	16,557
1	15,567	15,731	16,020	16,538
2	14,726	15,305	15,135	15,672
3	13,917	14,553	14,826	14,778
4	13,790	13,783	14,203	14,434
5	13,493	13,598	13,372	13,980
6	13,463	13,437	13,328	13,156
7	14,525	13,693	13,488	13,313
8	14,950	14,551	13,530	13,287
9	15,265	15,945	15,496	14,647
10	14,487	15,049	15,635	14,967
11	13,844	13,731	14,305	14,637
12	12,899	12,465	12,420	12,936
Specials 1/	10,570	10,281	10,058	9,490

Grade	1987	1988		
		Total	Public	Private
All grades	202,419	203,358	167,899	35,459
Nursery	2,734	2,698	342	2,356
Kindergarten	16,915	16,924	14,099	2,825
1	16,718	16,995	14,288	2,707
2	16,111	16,358	13,807	2,551
3	15,286	15,856	13,438	2,418
4	14,436	14,948	12,662	2,286
5	14,231	14,229	12,084	2,145
6	13,692	14,106	11,964	2,142
7	13,402	13,956	11,203	2,753
8	13,497	13,368	10,740	2,628
9	14,476	14,396	11,780	2,616
10	14,103	13,761	11,199	2,562
11	14,260	13,495	10,993	2,502
12	13,239	12,645	10,086	2,559
Specials 1/	9,319	9,623	9,214	409

1/ Public school data include ungraded students in special schools.

Source: Hawaii State Department of Education, records.

Table 91.-- ENROLLMENT (PUBLIC AND PRIVATE SCHOOLS COMBINED), BY GRADES, BY COUNTIES: SEPTEMBER 13, 1988

Grade	State total	Hawaii	Maui	Honolulu	Kauai
All grades	203,358	25,179	18,566	149,574	10,039
Nursery	2,698	334	158	2,085	121
Kindergarten	16,924	2,008	1,620	12,360	936
1	16,995	2,110	1,599	12,414	872
2	16,358	2,025	1,577	11,937	819
3	15,856	2,058	1,446	11,560	792
4	14,948	1,938	1,386	10,835	789
5	14,229	1,865	1,341	10,284	739
6	14,106	1,887	1,335	10,206	678
7	13,956	1,801	1,295	10,154	706
8	13,368	1,588	1,237	9,900	643
9	14,396	1,718	1,303	10,779	596
10	13,761	1,593	1,226	10,325	617
11	13,495	1,620	1,207	10,015	653
12	12,645	1,490	1,134	9,426	595
Specials 1/	9,623	1,144	702	7,294	483

1/ Includes ungraded students in special schools.
Source: Hawaii State Department of Education, records.

Table 92.-- FEDERALLY-CONNECTED PUPILS IN PUBLIC SCHOOLS: FALL, 1985 TO 1988

Category	1985	1986	1987	1988
All federally-connected pupils	38,046	37,843	37,721	36,965
Percent of total enrollment	23.2	23.0	22.7	22.1
Military dependents	20,037	19,907	20,540	20,104
Others 1/	18,009	17,936	17,181	16,861

1/ Includes dependents of civilian employees of armed forces.
Source: Hawaii State Department of Education, records.

Table 93.-- PRIVATE SCHOOLS, TEACHERS, AND ENROLLMENT, SEPTEMBER 13, 1988, AND PRIVATE HIGH SCHOOL GRADUATES, 1987-1988, BY CHURCH AFFILIATION

Church affiliation	Schools	Teachers	Enroll-ment	High school graduates
Total	141	2,512	35,459	2,648
Church-affiliated	92	1,463	22,757	1,457
Roman Catholic	40	685	12,098	840
Other church-affiliated	52	778	10,659	617
Non-church-affiliated ...	49	1,049	12,702	1,191

Source: Hawaii State Department of Education, records.

Table 94.-- EXPENDITURES, COST PER PUPIL, AVERAGE SALARIES, AND DAYS OF SCHOOL, FOR PUBLIC ELEMENTARY AND SECONDARY EDUCATION: 1978-1979 TO 1988-1989

Fiscal year	Expenditures (dollars)		Cost per pupil 1/ (dollars)	Average annual salary of teachers (dollars)	Number of days of school
	Current operations	Capital outlay			
1978-1979 ..	333,768,126	20,809,000	1,981.35	18,360	173
1979-1980 ..	360,316,441	30,489,000	2,163.62	19,858	2/ 163
1980-1981 ..	402,344,699	30,860,000	2,457.32	21,085	176
1981-1982 ..	432,228,402	17,237,000	2,700.72	22,473	177
1982-1983 ..	497,763,951	23,304,890	3,098.23	21,504	3/ 174
1983-1984 ..	509,710,506	11,941,000	3,255.97	25,380	176
1984-1985 ..	526,741,742	13,652,707	3,351.18	25,648	174
1985-1986 ..	585,533,781	27,812,430	3,795.31	26,595	176
1986-1987 ..	589,592,735	23,445,100	3,748.38	27,546	176
1987-1988 ..	622,638,850	32,211,000	3,950.49	28,353	177
1988-1989 ..	684,657,547	37,505,200	4,171.74	29,835	174

1/ Based on average daily membership.

2/ Scheduled school days numbered 177; 14 days were missed because of "blue collar strike."

3/ One day missed due to Hurricane Iwa.

Source: Hawaii State Department of Education, records.

Table 95.-- SCHOLASTIC APTITUDE TEST SCORE AVERAGES: 1975 TO 1989

Component	1974-75	1979-80	1985-86	1986-87	1987-88	1988-89 1/
Verbal	414	396	403	404	408	406
Math	478	472	477	477	480	482

1/ The U.S. averages in 1988-89 were 427 for verbal and 476 for math.

Source: U.S. Department of Education, National Center for Education Statistics, Digest of Education Statistics 1988 (September 1988), p. 111; Honolulu Advertiser, September 20, 1988, p. A-1, and September 12, 1989, p. A-3.

Table 96.-- STANFORD ACHIEVEMENT TEST RESULTS FOR PUBLIC SCHOOL GRADES 3, 6, 8, AND 10: 1989

[Percent of students taking test]

Subject and level	Norm	Grade 3	Grade 6	Grade 8	Grade 10
Reading:					
Below average	23	22	16	25	22
Average	54	58	56	54	61
Above average	23	20	28	21	17
Math:					
Below average	23	18	19	26	20
Average	54	51	45	49	51
Above average	23	31	36	25	29

Source: Honolulu Advertiser, October 27, 1989, pp. A-1 and A-4.

Table 97.-- ENROLLMENT AT THE UNIVERSITY OF HAWAII, BY CAMPUS: FALL 1979 TO 1989

[Fall enrollment in regular credit programs, including concurrent registrants and early admits]

Year	Total, all campuses	University of Hawaii at Manoa				Univ. of Hawaii at Hilo 2/	West Oahu College
		Total	Undergraduates	Graduates	Other 1/		
1979 ..	43,375	20,833	14,902	4,258	1,673	3,099	258
1980 ..	43,542	20,319	14,402	4,235	1,682	3,504	247
1981 ..	45,425	20,629	14,487	4,324	1,818	3,478	369
1982 ..	47,527	21,065	14,879	4,328	1,858	3,752	410
1983 ..	46,468	21,112	15,091	4,339	1,682	3,613	433
1984 ..	43,970	20,023	14,234	4,255	1,534	3,237	435
1985 ..	43,369	19,666	13,565	4,283	1,818	3,200	443
1986 ..	42,837	18,977	12,762	4,438	1,777	3,300	480
1987 ..	43,054	18,448	12,254	4,400	1,794	3,553	482
1988 ..	42,767	18,477	12,121	4,382	1,974	3,634	492
1989 ..	43,785	18,622	12,021	4,601	2,000	3,973	601

Year	Community Colleges 3/						
	Total	Honolulu	Kapiolani	Leeward	Windward	Kauai	Maui
1979 ..	19,185	4,576	4,641	5,540	1,505	1,104	1,819
1980 ..	19,472	4,509	4,978	5,575	1,442	1,082	1,886
1981 ..	20,949	5,211	5,089	6,032	1,489	1,201	1,927
1982 ..	22,300	5,331	5,560	6,261	1,568	1,272	2,308
1983 ..	21,310	5,131	5,284	6,060	1,462	1,190	2,183
1984 ..	20,275	4,554	5,281	5,785	1,366	1,176	2,113
1985 ..	20,060	4,539	5,058	5,667	1,543	1,177	2,076
1986 ..	20,080	4,275	5,226	5,703	1,644	1,248	1,984
1987 ..	20,571	4,527	5,505	5,748	1,650	1,183	1,958
1988 ..	20,164	4,303	5,599	5,445	1,558	1,239	2,020
1989 ..	20,589	4,199	5,741	5,652	1,606	1,313	2,078

Footnotes and source follow next table.

Table 98.-- DEGREES, DIPLOMAS, AND CERTIFICATES AWARDED BY THE UNIVERSITY OF HAWAII: 1979 TO 1989

Year ended June 30	University of Hawaii at Manoa					
	Associate	Bachelor	Master	Doctor	First profes- sional 4/	Other 5/
1979	69	2,899	1,063	122	122	134
1980	46	2,859	969	102	136	124
1981	57	2,701	968	115	152	106
1982	52	2,588	993	111	137	122
1983	52	2,639	938	120	132	120
1984	60	2,698	945	101	131	166
1985	90	2,642	914	138	137	189
1986	66	2,679	837	132	131	244
1987	65	2,601	794	130	137	249
1988	54	2,521	830	111	126	259
1989	92	2,404	833	162	119	224

Year ended June 30	University of Hawaii at Hilo 2/			West Oahu College: Bachelor	Community Colleges 3/	
	Certifi- cates 6/	Associate degrees	Bachelor degrees		Certifi- cates 6/	Associate degrees
1979	92	255	166	22	509	1,964
1980	86	256	160	48	481	1,807
1981	57	261	171	47	483	1,763
1982	74	263	160	46	519	1,882
1983	68	242	193	91	509	2,008
1984	80	239	188	136	473	2,026
1985	67	229	180	77	454	1,875
1986	56	196	183	98	478	1,933
1987 7/ .	56	202	201	139	378	1,840
1988 7/ .	48	206	208	108	345	1,731
1989 7/ .	74	180	154	116	201	1,609

1/ Includes unclassified, special and no data on student level.

2/ Hilo College, College of Agriculture, and Hawaii Community College.

3/ Excludes Hawaii Community College, which is part of UHH.

4/ Includes Doctor of Jurisprudence (J.D.) and Doctor of Medicine (M.D.).

5/ Certificates in Dental Hygiene and professional diplomas.

6/ Certificates of Achievement. At UHH, includes Certificates in Education beginning 1989 (30 in 1989).

7/ For community colleges, excludes no data (64 in 1987, 15 in 1988, 21 in 1989).

Source: University of Hawaii, Office of Institutional Research and Analysis, records.

Table 99.-- UNIVERSITY OF HAWAII CURRICULA, TUITION, FINANCES, AND FACULTY AND STAFF: 1987 TO 1989

Subject	1987	1988	1989
Curricula offered at Manoa Campus, Fall 1/ ...	252	257	260
Bachelor's degree programs	85	88	88
Master's degree programs	84	84	85
Doctoral programs (DrPH, EdD, PhD)	48	49	49
Other programs 1/	35	36	38
Tuition per semester (full-time undergraduate, regular session):			
Manoa Campus: Resident	$ 515	$ 565	$ 615
Nonresident	1,840	1,840	1,840
Hilo (upper division): Resident	475	525	575
Nonresident	1,720	1,720	1,720
West Oahu College: Resident	365	390	415
Nonresident	1,240	1,240	1,240
Community colleges: Resident	155	175	200
Nonresident	1,030	1,130	1,230
Finances, fiscal year ending June 30:			
Current fund revenues ($1,000)	349,546	392,143	422,113
Current fund expenditures ($1,000)	340,375	374,529	407,831
Number of students receiving financial aid .	16,182	15,556	(NA)
Faculty and staff, October	6,973	7,168	7,388
Board of Regents appointees	5,360	5,482	5,806
Full-time	3,419	3,528	3,682
Part-time	1,941	1,954	2,124
Civil Service personnel	1,613	1,686	1,582
Full-time	1,566	1,637	1,540
Part-time	47	49	42

NA Not available.

1/ Includes 2-year, undergraduate, and graduate certificate programs first professional degree programs (JD, MD), and other programs.

Source: Office of Institutional Research and Analysis, University of Hawaii, Facts About the University of Hawaii (annual), and records.

Table 100.-- ENROLLMENT AND EARNED DEGREES CONFERRED, FOR PRIVATE COLLEGES AND UNIVERSITIES: 1986 TO 1989

[Excludes extension programs of mainland and foreign schools and other limited or specialized curriculum programs]

Year and institution 1/	Fall enrollment 2/			Earned degrees conferred 3/		
	Total	Undergrad	Graduate	Associate	Bachelor's	Master's
1986, total	9,082	8,661	421	252	736	74
Brigham Young ..	2,005	2,005	-	51	165	-
Chaminade	2,606	2,305	301	53	257	74
Hawaii Loa	400	400	-	1	70	-
Hawaii Pacific .	4,071	3,951	120	147	244	-
1987, total	9,576	9,038	538	303	827	132
Brigham Young ..	2,079	2,079	-	57	212	-
Chaminade	2,584	2,276	308	80	271	132
Hawaii Loa	399	399	-	4	68	-
Hawaii Pacific .	4,514	4,284	230	162	276	-
1988, total	9,612	8,957	655	343	876	136
Brigham Young ..	2,055	2,055	-	75	212	-
Chaminade	2,507	2,169	338	85	268	125
Hawaii Loa	490	490	-	3	103	-
Hawaii Pacific .	4,560	4,243	317	180	293	11
1989, total	10,500	9,723	777	376	1,041	165
Brigham Young ..	2,040	2,040	-	92	310	-
Chaminade	2,903	2,588	315	109	293	126
Hawaii Loa	595	595	-	-	104	-
Hawaii Pacific .	4,962	4,500	462	175	334	39

1/ Brigham Young University, Hawaii Campus (in Laie); Chaminade University of Honolulu; Hawaii Loa College (in Kaneohe); Hawaii Pacific College (in Honolulu).

2/ In regular credit programs.

3/ Year ended June 30.

Source: Compiled by Hawaii State Department of Business and Economic Development from college officials.

Table 101.-- RESIDENCE AND MIGRATION OF ALL NEW COLLEGE STUDENTS: FALL 1979, 1981, 1984, AND 1986

[New students are those students who are enrolled at the reporting institution for the first time at each of the following levels-undergraduate, graduate, first-professional, or unclassified]

Category	1979	1981	1984	1986
Students enrolled in State 1/	15,450	16,235	15,611	14,850
Student residents of State 2/	16,411	17,318	15,429	15,644
Students remaining in State 3/ ...	12,725	13,626	12,556	12,963
Migration of students:				
Out of State	3,686	3,692	2,873	2,681
Into State	2,725	2,609	3,055	1,887
Net migration	-961	-1,083	+182	-794

1/ All first-time students reported by the institution attended; i.e., all in-migrants (including foreign students) and "remaining" students.

2/ All students residing in Hawaii when first admitted to the reporting institution (whether in Hawaii, on the Mainland, or in outlying areas) at the current student level.

3/ Students who attend institutions in their home State.

Source: U.S. Department of Education, National Center for Education Statistics, Digest of Education Statistics 1981 (February 1981), p. 88, Digest of Education Statistics 1983-84 (1984), p. 90, Digest of Education Statistics 1987 (May 1987), p. 143, and Digest of Education Statistics 1988, p. 166.

Table 102.-- FEDERAL OBLIGATIONS TO UNIVERSITIES AND COLLEGES: 1983 TO 1987

[In thousands of dollars. Fiscal year data]

Institution	1983	1984	1985	1986	1987
All universities and colleges ...	36,522	38,299	50,421	47,676	58,671
University of Hawaii at Manoa ...	30,815	30,748	42,806	38,815	39,899

Source: National Science Foundation, Federal Support to Universities, Colleges, and Selected Nonprofit Institutions, Fiscal Year 1987, NSF 88-330 (1989), pp. 108 and 110.

Table 103.-- CHARACTERISTICS OF THE HAWAII STATE LIBRARY SYSTEM: 1983 TO 1988

Subject	1983	1984	1985	1986	1987	1988
Library locations,						
June 30	47	49	49	49	49	49
Oahu	22	23	23	23	23	23
Other islands	25	26	26	26	26	26
Personnel, June 30 1/ ..	482.55	492.05	497.05	497.55	497.55	532.05
Librarians	126.00	131.00	134.00	133.00	133.00	146.00
All others	356.55	361.05	363.05	364.55	364.55	386.05
Hours open 2/	54	54	54	54	54	54
Collections, June 30:						
Books 3/	2,203.4	2,207.4	1,976.8	2,096.8	2,073.8	2,225.7
Circulation, year ended June 30 3/	5,321.7	5,490.7	6,011.4	6,500.2	6,480.5	6,552.9

1/ Full-time equivalent basis, excluding student help. For 1984 and later years, data include permanent and temporary State general-funded positions and temporary Federal funded positions.

2/ Regular weekly totals for Hawaii State Library, 478 South King Street, Honolulu.

3/ In thousands.

Source: Hawaii State Public Library System, Research & Evaluation Services, records.

Table 104.-- CHARACTERISTICS OF THE HAWAII STATE LIBRARY SYSTEM BY DISTRICTS: 1988

District	Library locations, June 30	Personnel, June 30 1/	Circulation, year ended June 30
Total system	49	532.05	6,552,926
Oahu	22	286.00	
Hawaii State Library	1	88.00	529,826
East Oahu Library District	12	120.50	2,569,298
West Oahu Library District	9	77.50	1,472,817
Other islands	26	138.55	
Hawaii Library District	13	61.55	987,397
Kauai Library District	5	32.50	430,221
Maui Library District 2/	8	44.50	522,886
Library for the Blind and Physically Handicapped	1	14.50	40,211
Administration/Centralized Processing Center	...	93.00	...

District	Collections, June 30		
	Books	Periodical subscriptions	Phonodisks/ phonotapes
Total system	2,225,737	8,468	74,416
Oahu	1,449,161	5,041	47,881
Hawaii State Library	406,944	1,949	18,712
East Oahu Library District	639,851	1,934	19,179
West Oahu Library District	402,366	1,158	9,990
Other islands	683,697	3,257	23,312
Hawaii Library District	291,956	1,225	7,131
Kauai Library District	177,951	828	9,590
Maui Library District 2/	213,790	1,204	6,591
Library for the Blind and Physically Handicapped	3/ 92,879	3/ 170	4/ 3,223

1/ Full-time equivalent basis, including permanent and temporary State general-funded and temporary Federal funded positions, but excluding student help.

2/ Includes libraries on Lanai (1 location), Maui (6 locations), and Molokai (1 location).

3/ Includes print, braille, and recorded media, number of titles only.

4/ Includes music recordings only.

Source: Hawaii State Public Library System, Research & Evaluation Services, records.

Table 105.-- UNIVERSITY OF HAWAII LIBRARY SYSTEM HOLDINGS AND CIRCULATION, BY CAMPUS: 1987 TO 1989

Subject and campus	1987	1988	1989
NUMBER OF VOLUMES, JUNE 30			
All campuses	2,616,130	2,709,892	2,788,392
University of Hawaii at Manoa	2,164,497	2,244,118	2,312,229
University of Hawaii-West Oahu	21,577	20,482	22,832
University of Hawaii at Hilo 2/	188,692	194,692	198,451
Community colleges, total 2/	241,364	250,600	254,880
Honolulu	48,726	50,681	51,710
Kapiolani	37,215	38,982	37,945
Leeward	54,953	56,054	56,907
Windward	32,348	33,043	33,970
Kauai	36,090	37,736	39,567
Maui	32,032	34,104	34,781
CIRCULATION, YEAR ENDED JUNE 30			
All campuses	548,529	583,250	622,821
University of Hawaii at Manoa	332,036	374,260	404,034
University of Hawaii-West Oahu	6,565	5,336	4,902
University of Hawaii at Hilo 1/	52,900	48,885	57,901
Community colleges, total 1/	157,028	154,769	155,984
Honolulu	48,448	46,735	52,101
Kapiolani	16,827	17,544	17,860
Leeward	39,339	38,407	33,011
Windward	13,842	15,070	13,191
Kauai	15,649	13,417	17,148
Maui	22,923	23,596	22,673

1/ Hawaii Community College is included with the University of Hawaii at Hilo.

Source: University of Hawaii at Manoa, University Libraries, records.

Section 4

LAW ENFORCEMENT, COURTS AND PRISONS

Statistics in this section refer to crimes committed, victims of crime, arrests, the police, attorneys, the judiciary system, prisons, and youth correctional facilities.

Major offenses reported to the police in 1988 numbered 65,700, compared with 63,600 in 1987 and 71,300 in 1980. The rate per 1,000 resident population increased from 53 in 1985 to 60 in 1988. Seventy-six percent of the serious crimes in 1988 occurred on Oahu. For the State as a whole, major offenses known to police in 1988 included 45 murders or cases of non-negligent manslaughter, 353 rapes, 914 robberies, 1,502 aggravated assaults, 13,665 burglaries, 44,859 cases of larceny, and 3,927 auto thefts. The value of property reported stolen in 1988 amounted to $38 million, exclusive of motor vehicles; only 5.2 percent was recovered. Authorities confiscated 1,923,000 marijuana plants, with an estimated value of $1.9 billion, during the year. Confirmed instances of child abuse and neglect numbered 2,572 in 1988. Eighteen percent of the major offenses known to police were cleared by arrest or otherwise in 1988. Forty-four percent of the persons arrested for major crimes and 23 percent of those arrested for lesser offenses in 1988 were less than eighteen years of age. The number of inmates in the ten State correctional institutions averaged 2,194 during fiscal 1988; of this number, 1,414 were adults serving time for felonies. Cases concluded in the State Supreme Court, Intermediate Court of Appeals, four circuit courts, and four district courts and their divisions during fiscal 1988 numbered 820,000, including 708,000 traffic cases. Filings in the United States District Court for Hawaii in 1989 included 983 civil cases, 1,447 criminal cases, and 855 bankruptcy cases. The last legal execution in Hawaii took place in 1947. There were 3,949 attorneys licensed in Hawaii as of mid-1989. Criminal justice system expenditures amounted to $241 million in fiscal 1986.

Statistics on law enforcement, courts, and corrections in Hawaii appear in the annual reports of the county police departments, the State Judiciary, the Department of Corrections, and the Administrative Office of the United States Courts. The Hawaii Criminal Justice Data Center issues quarterly and annual reports titled *Crime in Hawaii*. Figures on crime, the courts, and corrections in earlier years appear in *Historical Statistics of Hawaii*, Section 10. National data are summarized in the *Statistical Abstract of the United States: 1989*, Section 5.

Table 106.-- ACTUAL MAJOR (PART I) OFFENSES KNOWN TO THE POLICE, BY COUNTIES: 1978 TO 1988

[Part I offenses include murder, negligent and nonnegligent manslaughter, forcible rape, robbery, aggravated assault, burglary, larceny-theft, motor vehicle theft, and, since 1979, arson. Arson, however, is excluded from this table through 1984. Actual offenses include reported or known offenses, less unfounded cases]

Year	State total		City and County of Honolulu	Hawaii County	Kauai County	Maui County
	Number	Rate 1/				
1978	63,333	68.2	51,273	4,455	2,407	5,198
1979	65,597	69.0	52,310	4,634	2,425	6,228
1980	71,292	73.6	56,885	5,222	2,637	6,548
1981	63,454	64.7	48,938	5,623	2,505	6,388
1982	64,679	64.8	49,826	5,516	2,515	6,822
1983	59,086	58.0	45,874	4,869	2,303	6,040
1984	56,913	55.0	44,560	4,697	2,145	5,511
1985 2/ ..	55,372	52.7	42,475	5,147	2,144	5,606
1986 2/ ..	60,716	57.1	46,842	5,370	2,428	6,076
1987 2/ ..	63,575	58.8	49,418	4,955	2,555	6,647
1988 2/ ..	65,729	59.9	49,653	5,938	2,548	7,590

1/ Annual rate per 1,000 resident population, July 1.

2/ Includes arson, omitted before 1985. Excluding arson, the 1985 statewide total was 54,814 offenses, or 52.2 per 1,000 inhabitants.

Source: Hawaii Criminal Justice Data Center, Crime in Hawaii (annual), and data compiled from Police Department annual reports and records.

Table 107.-- ACTUAL PART I OFFENSES KNOWN TO THE POLICE, BY TYPE OF OFFENSE, FOR THE STATE OF HAWAII: 1979 TO 1988

Offense	1979	1980	1981	1982	1983
All Part I offenses	63,333	65,597	71,292	63,454	59,086
Murder, non-neg. manslaughter	67	85	47	31	57
Negligent manslaughter	135	135	98	29	29
Forcible rape	296	327	314	319	300
Robbery	1,674	1,821	1,444	1,561	1,315
Aggravated assault	587	620	570	590	868
Burglary	16,390	17,668	16,611	16,337	13,589
Larceny	39,942	44,766	40,102	41,568	38,585
Motor vehicle theft	6,506	5,870	4,268	4,244	4,343
Arson 1/	...	...	...	...	...

Offense	1984	1985	1986	1987	1988
All Part I offenses	56,913	55,372	60,716	63,575	65,729
Murder, non-neg. manslaughter	34	43	51	52	45
Negligent manslaughter 2/	-	-	-	63	65
Forcible rape	315	310	329	396	353
Robbery	1,202	1,048	1,129	1,043	914
Aggravated assault	857	912	1,095	1,364	1,502
Burglary	12,588	12,164	14,218	12,500	13,665
Larceny	38,292	37,357	39,922	43,669	44,859
Motor vehicle theft	3,625	2,980	3,486	3,986	3,927
Arson 1/	...	558	486	502	399

1/ Not included in Part I offense tabulations before 1985.

2/ Not separately reported in 1984, 1985, and 1986.

Source: Compiled by Hawaii Criminal Justice Data Center from Annual Reports of the Hawaii County Police Department, Honolulu Police Department, Kauai Police Department, and Maui Police Department.

Table 108.-- ACTUAL OFFENSES KNOWN TO POLICE AND OFFENSES CLEARED BY ARREST OR OTHERWISE, BY CLASS OF OFFENSE: 1978 TO 1988

[Arson, reclassified as a Part I offense effective 1979, is included as a Part II offense in this table prior to 1986]

Year	Actual offenses known to police		Number cleared by arrest or otherwise 1/		Clearances per 100 offenses 1/	
	Part I	Part II, except traffic	Part I	Part II, except traffic	Part I	Part II, except traffic
1978 ..	63,333	84,926	12,101	56,275	19.1	66.3
1979 ..	65,597	89,365	11,933	56,988	18.2	63.8
1980 ..	71,292	93,712	12,753	55,233	17.9	58.9
1981 ..	63,454	94,179	10,295	56,154	16.2	59.6
1982 ..	64,679	92,898	10,934	53,318	16.9	57.4
1983 ..	59,086	88,299	10,355	53,010	17.5	60.0
1984 ..	56,852	94,240	9,553	59,272	16.8	62.9
1985 ..	54,814	97,661	10,066	62,016	18.4	63.5
1986 ..	60,716	100,283	10,663	61,094	17.6	60.9
1987 ..	63,575	107,259	12,282	66,416	19.3	61.9
1988 ..	65,729	113,073	11,886	72,026	18.1	63.7

1/ Data include prior years' offenses cleared in current year.

Source: Data compiled by Hawaii Criminal Justice Data Center from Police Department annual reports and Uniform Crime Reporting Program.

Table 109.-- ACTUAL OFFENSES KNOWN TO POLICE AND OFFENSES CLEARED BY ARREST OR OTHERWISE, BY CLASS OF OFFENSE, BY COUNTIES: 1988

[Arson is classified as a Part I offense]

County	Actual offenses known to police		Number cleared by arrest or otherwise 1/		Clearances per 100 offenses 1/	
	Part I	Part II, except traffic	Part I	Part II, except traffic	Part I	Part II, except traffic
State total .	65,729	113,073	11,886	72,026	18.1	63.7
Honolulu	49,653	83,813	8,741	57,715	17.6	68.9
Hawaii	5,938	8,799	1,460	5,505	24.6	62.6
Kauai	2,548	4,072	527	1,710	20.7	42.0
Maui	7,590	16,389	1,158	7,096	15.3	43.3

1/ Data include prior years' offenses cleared in current year.
Source: Hawaii Criminal Justice Data Center, from data provided by county police departments.

Table 110.-- MARIJUANA CONFISCATED OR DESTROYED BY AUTHORITIES, BY COUNTIES: 1984 TO 1988

Calendar year	Number of plants, by counties					Estimated value 1/ (million dollars)
	State total	Hawaii	Maui	Honolulu	Kauai	
1984	533,238	325,761	37,388	120,238	49,851	533
1985	809,839	563,621	79,537	73,452	93,229	810
1986	1,050,650	742,238	101,662	31,372	175,378	1,051
1987 2/ .	1,901,646	1,737,685	70,181	20,464	73,316	1,902
1988 2/ .	1,923,235	1,834,353	19,077	8,647	61,158	1,923

1/ At $1,000 per plant. Excludes value of confiscated processed marijuana.

2/ Hawaii County total includes plants destroyed by the Department of Land and Natural Resources (401,000 in 1988) as well as by the Hawaii County Police Department (1,433,353).

Source: Compiled from county police departments by the Hawaii Criminal Justice Data Center.

Table 111.-- ACTUAL PART I OFFENSES KNOWN TO POLICE AND PART I OFFENSES CLEARED BY ARREST OR OTHERWISE, FOR THE STATE AND OAHU: 1988

Type of offense	Actual offenses known to police		Number cleared by arrest or otherwise 1/		Clearances per 100 offenses 1/	
	State total	Oahu only	State total	Oahu only	State total	Oahu only
All Part I offenses	65,729	49,653	11,886	8,741	18.1	17.6
Murder and nonnegligent manslaughter	45	29	31	15	68.9	51.7
Manslaughter (neg.) ...	65	64	40	40	61.5	62.5
Rape	353	281	182	151	51.6	53.7
Robbery	914	828	315	279	34.5	33.7
Aggravated assault	1,502	1,052	860	599	57.3	56.9
Burglary	13,665	9,750	1,599	1,005	11.7	10.3
Larceny	44,859	34,140	7,946	5,968	17.7	17.5
Motor vehicle theft ...	3,927	3,194	863	645	22.0	20.2
Arson	399	315	50	39	12.5	12.4

1/ Data include clearance of offenses reported in previous years.
Source: Hawaii Criminal Justice Data Center, from data provided by county police departments.

Table 112.-- POLICE PERSONNEL, BY COUNTIES: 1988

Subject	State total	Honolulu	Hawaii	Kauai	Maui
Police personnel	2,895	2,084	351	147	313
Per 1,000 de facto population	2.38	2.31	2.78	2.26	2.50

Source: County police department annual reports.

Table 113.-- PERSONS ARRESTED FOR PART I AND PART II OFFENSES, BY AGE AND SEX, FOR COUNTIES: 1988

Subject	State total	Counties			
		Honolulu	Hawaii	Maui	Kauai
PART I OFFENSES 1/					
Total	12,408	9,471	1,188	1,180	569
Juveniles	5,469	4,315	467	419	268
Male	4,297	3,417	336	320	224
Female	1,172	898	131	99	44
Adults	6,939	5,156	721	761	301
Male	5,167	3,838	518	556	255
Female	1,772	1,318	203	205	46
PART II OFFENSES (EXCEPT TRAFFIC)					
Total	47,245	36,861	4,351	3,280	2,753
Juveniles	10,837	7,790	1,058	883	1,106
Male	7,240	5,240	662	636	702
Female	3,597	2,550	396	247	404
Adults	36,408	29,071	3,293	2,397	1,647
Male	30,845	24,614	2,792	2,070	1,369
Female	5,563	4,457	501	327	278

1/ Includes arson.

Source: Hawaii Criminal Justice Data Center, data from Uniform Crime Reports.

Table 114.-- CHILD ABUSE AND NEGLECT REPORTS: 1982 TO 1988

Subject	1982	1983	1984	1985	1986	1987	1988
Reports	2,684	3,635	4,385	4,346	4,824	4,790	4,539
Confirmed ..	1,379	1,622	2,181	2,386	2,586	2,531	2,572

Source: Hawaii State Department of Human Services, records.

Table 115.-- VALUE OF PROPERTY REPORTED STOLEN AND VALUE OF STOLEN PROPERTY RECOVERED, BY CATEGORY: 1978 TO 1988

Year	Locally stolen motor vehicles			Other stolen property		
	Value stolen ($1,000)	Value recovered 1/		Value stolen ($1,000)	Value recovered 1/	
		Amount ($1,000)	Percent		Amount ($1,000)	Percent
1978 ...	9,284.8	6,485.0	69.8	22,430.8	2,187.2	9.8
1979 ...	14,469.1	9,999.0	69.1	24,903.4	2,639.5	10.6
1980 ...	14,075.2	10,296.9	73.2	31,832.9	2,102.2	6.6
1981 ...	12,033.6	9,387.9	78.0	31,667.8	2,380.6	7.5
1982 ...	12,524.0	8,328.0	66.5	26,001.2	2,028.3	7.8
1983 ...	13,904.4	9,474.9	68.1	25,941.6	2,151.1	8.3
1984 ...	12,327.9	9,110.0	73.9	26,576.6	1,861.3	7.0
1985 ...	10,376.8	7,683.9	74.0	24,114.3	2,003.5	8.3
1986 ...	11,491.6	7,857.3	68.4	28,236.2	1,931.2	6.8
1987 ...	13,222.5	10,021.0	75.8	32,071.0	3,089.0	9.6
1988 ...	15,956.0	12,312.1	77.2	37,895.0	1,965.8	5.2

1/ Includes property stolen in previous years.

Source: Hawaii Criminal Justice Data Center, data from Uniform Crime Reports.

Table 116.-- VALUE OF PROPERTY REPORTED STOLEN AND VALUE OF STOLEN PROPERTY RECOVERED, BY COUNTIES: 1988

Subject	State total	Counties			
		Honolulu	Hawaii	Maui	Kauai
Value of property stolen ($1,000)	53,851.02	41,369.45	3,128.10	7,647.98	1,705.49
Motor vehicles	15,955.99	12,889.30	912.04	1,643.57	511.08
Other property	37,895.03	28,480.15	2,216.06	6,004.41	1,194.41
Value of stolen property recovered 1/ ($1,000) ...	14,277.92	11,457.23	856.93	1,590.49	373.27
Motor vehicles	12,312.07	10,011.78	698.34	1,273.36	328.58
Other property	1,965.85	1,445.45	158.59	317.13	44.69
Percent of value recovered	26.5	27.7	27.4	20.8	21.9
Motor vehicles	77.2	77.7	76.6	77.5	64.3
Other property	5.2	5.1	7.2	5.3	3.7

1/ Includes property stolen in previous years.

Source: Hawaii Criminal Justice Data Center, data from Uniform Crime Reports.

Table 117.-- STATE AND COUNTY GOVERNMENT EMPLOYMENT AND EXPENDITURES FOR CRIMINAL JUSTICE ACTIVITIES: 1986

Subject	Total	Police protection	Correction	Judicial and legal
Total employment, Oct.	1/ 3,854	2,788	1,066	...
Expenditures, fiscal year (mil. dol.)	241	101	70	70

1/ Excludes judicial and legal employment, not reported.

Source: Data from U.S. Bureau of the Census, cited in Statistical Abstract of the United States: 1989, p. 177.

Table 118.-- CRIMINAL JUSTICE POSITIONS AND EXPENDITURES: FISCAL YEAR 1980-1981 TO 1985-1986

[Annual totals exclude data for Attorney General and Public Defender, not available before 1984-1985]

Fiscal year and agency	Authorized positions (full-time equivalent 1/)	Expenditures ($1,000)
1980-1981	4,449.5	111,446
1981-1982	4,886.5	143,289
1982-1983	5,046.0	143,826
1983-1984	5,339.0	145,490
1984-1985	5,659.0	177,947
1985-1986	6,013.0	197,249
AGENCY: 1985-1986		
Police	2,901.0	98,263
Prosecutors	291.0	9,142
Judiciary	1,438.0	52,813
Corrections	1,287.0	34,762
Intake Service Centers	70.0	1,725
Paroling Authority	26.0	545
Public Defender 2/	98.0	3,233
Attorney General 2/	223.0	11,389

1/ Except for police, which are based on full-time positions only (sworn and non-sworn).

2/ Not included in all agency totals (see headnote).

Source: Hawaii State Department of the Attorney General, Hawaii Criminal Justice Data Center, Management and Administrative Statistics for the Criminal Justice System in the State of Hawaii (February 1989), p. 136.

Table 119.-- COURTS, JUDGES, MAGISTRATES, AND ATTORNEYS: 1987 TO 1989

[As of June 30]

Subject	1987	1988	1989
Federal judges and magistrates: 1/			
U.S. Bankruptcy Court	1	1	1
U.S. District Court	8	9	8
State justices and judges: 2/			
Supreme Court	5	5	5
Intermediate Court of Appeals	3	3	3
Circuit Courts 3/	24	24	24
Assigned to Family Court	1	1	1
District Courts 4/	30	30	32
Assigned to Family Court	8	8	8
Land Court	(5/)	(5/)	(5/)
Tax Appeal Court	(5/)	(5/)	(5/)
Attorneys licensed in Hawaii 6/	3,581	3,762	3,949

1/ Full-time and part-time. Includes visiting judges and magistrates. In addition, one judge of the U.S. Court of Appeals maintains an office in Honolulu.

2/ Authorized full-time positions.

3/ Includes one judge assigned to the Family Court, a division of the Circuit Courts. In addition, Circuit Court judges may be assigned to hear matters before the Land Court and Tax Appeal Court, both of which are specialized courts separate from the Circuit Courts. There are four Circuit Courts, convened in five locations.

4/ Includes judges assigned to the Family Court, a division of the Circuit Courts. There are four District Courts, one in each of the four judicial circuits, convened in 22 locations.

5/ Caseload assigned to Circuit Court judges.

6/ Includes judges.

Source: Office of the Clerk, U.S. District Court, records; Office of the Administrative Director of the Courts, State Judiciary, records.

Table 120.-- UNITED STATES DISTRICT COURT CASES: 1986 TO 1989

[Years ended June 30]

Subject	1986	1987	1988	1989
Civil cases:				
Commenced (filings)	1,208	1,223	1,278	983
Terminated	994	939	1,391	1,471
Pending, end of period	2,238	2,522	2,408	1,920
Criminal cases: 1/				
Commenced (filings)	1,558	1,297	1,550	1,447
Terminated	1,697	1,555	1,879	1,237
Pending, end of period	1,161	889	549	749
Bankruptcy:				
Commenced (filings), total	782	982	935	855
Business	253	221	158	117
Nonbusiness	529	761	777	738
Terminated	586	742	1,326	1,079
Pending, end of period	2,063	2,303	1,910	1,686

1/ Excludes transfers.

Source: Annual Report of the Director of the Administrative Office of the United States Courts for 1986, 1987, and 1988, and Appendix I, Detailed Statistical Tables, Annual Report ... June 30, 1989.

Table 121.-- STATE JUDICIARY TERMINATIONS: 1984 TO 1989

Court and type of case	1984	1985	1986	1987	1988	1989
Supreme Court 1/	1,817	2,769	2,588	2,371	2,883	3,046
Civil cases	174	199	287	262	247	246
Criminal cases	228	241	312	254	287	427
Other proceedings	1,415	2,329	1,989	1,855	2,349	2,373
Intermediate Court of Appeals 2/	183	179	224	248	188	186
Civil cases	97	70	87	91	68	78
Criminal cases	23	28	42	49	60	59
Other proceedings	63	81	95	108	60	49
Circuit Courts proper ...	21,573	13,248	13,467	10,604	11,321	15,079
Civil cases	13,918	6,288	7,465	5,622	4,977	5,405
Criminal cases	4,383	3,252	2,717	2,305	2,752	2,951
Part I offenses	1,810	1,309	1,073	925	1,013	1,126
Part II offenses	2,573	1,943	1,644	1,380	1,739	1,825
Other proceedings	3,272	3,708	3,285	2,677	3,592	6,723
Family Courts	27,583	28,773	34,635	40,130	34,433	34,450
Civil cases	12,722	11,833	16,038	14,294	11,709	11,301
Criminal cases	233	149	163	650	309	2,395
Other proceedings	14,628	16,791	18,434	25,186	22,415	20,754
District Courts	879,430	900,934	899,473	807,513	771,287	892,480
Civil cases	18,920	19,509	20,354	20,402	21,643	24,179
Traffic cases	811,816	831,505	822,295	730,573	708,365	821,080
Other violations	20,803	18,101	26,842	24,885	9,284	10,565
Criminal cases	27,891	31,819	29,982	31,653	31,995	36,656
Part I offenses	5,340	4,777	4,326	4,567	5,208	5,186
Part II offenses	22,551	27,042	25,656	27,086	26,787	31,470

1/ Data exclude cases transferred to the Intermediate Court of Appeals: 105 in 1984, 142 in 1985, 135 in 1986, 137 in 1987, 120 in 1988, and 138 in 1989.

2/ Data exclude cases transferred back to the Supreme Court: 1 in 1984 and 1 in 1987.

Source: Hawaii State Judiciary, Office of the Administrative Director of the Courts, records.

Table 122.-- STATE JUDICIARY CASES FILED, BY TYPE OF ACTION: 1986 TO 1988

[Years ended June 30]

Court and type of action	1986	1987	1988
Supreme Court, total	2,564	2,532	3,119
Primary cases	734	749	835
Appeals	677	694	778
Original proceedings	57	55	57
Supplemental proceedings	1,830	1,783	2,284
Intermediate Court of Appeals, total	222	241	180
Primary cases	132	134	120
Appeals	132	134	119
Supplemental proceedings	90	107	60
Circuit Courts Proper, total	14,297	13,326	13,588
Primary proceedings	13,338	12,717	13,052
Civil actions	6,718	5,987	5,732
Probate proceedings	1,733	1,830	1,884
Guardianship proceedings	518	449	524
Miscellaneous proceedings	1,309	1,519	1,386
Criminal actions	3,060	2,932	3,526
Part I offenses	1,086	1,084	1,197
Part II offenses	1,974	1,848	2,329
Supplemental proceedings	959	609	536
Family Courts, total	33,902	37,639	40,058
Primary proceedings, referrals	26,502	29,375	33,199
Marital actions, proceedings	7,508	7,379	7,484
Adoption proceedings	677	690	717
Parental proceedings	1,034	1,380	1,982
Miscellaneous proceedings	3,123	3,390	3,458
Criminal actions	364	963	2,185
Adults' referrals	2,394	2,666	3,417
Children's referrals	11,402	12,907	13,956
Supplemental proceedings	7,400	8,264	6,859
District Court, total	960,221	882,335	857,676
Civil	21,263	22,676	23,693
Regular civil	15,671	17,092	17,744
Small claims	5,592	5,584	5,949
Traffic	872,292	794,021	790,166
Moving - arrest and citation	196,385	173,332	125,294
Non-moving	124,217	112,032	90,821
Parking	551,690	508,657	574,051
Other violations	36,070	32,692	9,347
Criminal actions	30,596	32,946	34,470
Part I offenses	4,324	4,711	5,326
Part II offenses	26,272	28,235	29,144

Source follows next table.

Table 123.-- STATE JUDICIARY CASE TERMINATIONS, BY TYPE: 1986 TO 1988

[Years ended June 30]

Court and type of termination	1986	1987	1988
Supreme Court, total	2,723	2,508	3,003
Opinion filed	377	315	321
Dismissal motion granted	53	22	28
Withdrawn or discontinued	56	56	92
Transferred	135	137	120
Other disposition	2,102	1,978	2,442
Intermediate Court of Appeals, total	224	249	188
Opinion filed	124	135	120
Dismissal motion granted	1	2	-
Withdrawn or discontinued	3	2	5
Transferred	-	1	-
Other disposition	96	109	63
Circuit Courts Proper, total	13,467	10,604	11,321
No service	466	382	319
No answer	382	325	280
No statement of readiness	196	101	77
Dismissal: Notice of	1,088	742	795
Stip. for	3,823	3,316	2,755
By judge	904	486	646
Nonjury: Trial	206	212	248
Trial not completed	60	6	10
Jury: Verdict	327	302	333
Trial not completed	11	5	8
No trial held	1,634	1,442	1,580
Hearings: Contested	241	233	268
Uncontested	1,756	1,312	1,981
Others	2,373	1,740	2,021
Family Courts, total	34,635	40,130	34,433
Nolle prosequi	14	5	34
Dismissal	24	83	82
Nonjury: Trial	115	480	101
Trial not completed	4	2	2
Jury: Verdict	3	1	-
Trial not completed	-	-	-
No trial held	1,450	1,150	1,419
Hearings: Contested	3,508	3,050	4,077
Uncontested	14,041	19,711	13,911
Counseling service	6,299	6,629	6,962
Others	9,177	9,019	7,845

Continued on next page.

Table 123.-- STATE JUDICIARY CASE TERMINATIONS, BY TYPE: 1986 TO 1988 -- Con.

[Years ended June 30]

Court and type of termination	1986	1987	1988
District Court, total	899,473	807,513	771,287
Felonies	1,302	1,625	1,852
Stricken or discharged	256	235	229
By commitment to Grand Jury	33	41	17
By commitment to Circuit Court	1,013	1,349	1,606
Misdemeanors	28,680	30,028	30,143
By discharge or dismissal	8,137	8,019	8,078
By nolle prosequi	1,580	1,761	2,102
Stricken	1,463	1,582	1,616
By bail forfeiture	2,043	1,801	2,213
By commitment to Circuit Court	398	345	796
By conviction	15,059	16,520	15,338
Civil cases	20,354	20,402	21,643
By discontinuance or dismissal	8,149	7,257	8,239
By default or confession	11,439	12,483	12,752
By trial	647	550	559
By commitment to Circuit Court	119	112	93
Traffic and other violations	849,137	755,458	717,649
By discharge or dismissal	87,593	56,711	46,673
By nolle prosequi	17,247	16,159	15,509
Stricken	48,547	36,910	27,149
By bail forfeiture	550,982	523,303	537,903
By commitment to Circuit Court	61	153	219
By conviction	144,707	122,222	90,196

Source: The Judiciary, State of Hawaii, Annual Report, July 1, 1985 to June 30, 1986, Statistical Supplement, tables 1A, 1B, 7, 17, and 22; The Judiciary, State of Hawaii, Annual Report, July 1, 1986 to June 30, 1987, Statistical Supplement, tables 1A, 1B, 7, 17, and 22; The Judiciary, State of Hawaii, Annual Report, July 1,1987 to June 30, 1988, Statistical Supplement, tables 1A, 1B, 7, 17, and 22.

Table 124.-- INMATES PRESENT IN STATE CORRECTIONAL FACILITIES: ANNUAL AVERAGES, 1979 TO 1989

[Mean head count for fiscal years ended June 30]

Year	Total 1/	Adult facilities 2/			Juvenile facilities 3/	
		Sentenced felons	Sentenced jail 4/	Not sentenced	Boys	Girls
1979	698	412	48	170	61	7
1980	817	480	74	177	76	10
1981	952	561	82	210	88	11
1982	1,155	681	86	295	85	8
1983	1,402	812	120	391	73	6
1984	1,652	974	166	435	71	6
1985	1,898	1,223	204	392	72	7
1986	2,009	1,331	240	348	78	12
1987	2,094	1,429	202	374	79	10
1988	2,194	1,414	219	484	63	14
1989	2,203	1,428	206	494	56	9

1/ Includes "other jurisdiction" population, not separately shown.

2/ As of 1989, includes nine facilities: Oahu, Hawaii, Kauai, and Maui Community Correctional Centers, Kulani Correctional Facility, Halawa High Security Facility, Halawa Medium Security Facility, Women's Community Correctional Center, and Waiawa Correctional Facility.

3/ Hawaii Youth Correctional Facility.

4/ Includes felon probationers serving jail terms under one year.

Source: Hawaii State Department of Corrections, records.

Table 125.-- MEDIAN AGES AND AVERAGE SENTENCES OF SENTENCED FELON POPULATION: 1979 TO 1989

[Years ended June 30. These data cover only sentenced felons under the jurisdiction of the State's correctional facilities, in hospitals, in mainland facilities, and on community release status. Parolees are not included. Average sentence calculations include life with parole sentences]

Year	Median age (years) 1/		Average sentences (months)				
			Felons admitted		Felons released		
	At admission	Currently as of June 30	Minimum	Maximum	Minimum	Maximum	Time served
1979	26.5	26.6	59.8	119.0	34.8	89.2	36.9
1980	26.1	25.3	69.4	151.3	53.7	113.6	46.4
1981	27.0	27.8	40.7	173.5	55.7	124.9	47.4
1982	26.8	27.3	38.8	135.8	58.8	131.6	52.2
1983	27.5	29.2	49.2	127.2	40.5	98.5	47.5
1984	27.9	30.3	53.8	142.2	39.7	112.8	46.2
1985	29.3	28.2	47.5	145.7	53.0	126.0	42.7
1986	30.4	29.4	33.3	133.5	54.1	122.7	39.8
1987	27.0	31.0	45.9	190.8	42.5	132.4	38.0
1988	29.0	29.0	38.7	122.9	61.1	126.9	39.4
1989	30.1	28.7	(NA)	(NA)	73.5	109.2	36.6

NA Not available.

1/ For sentenced felon population on June 30. Due to a change in computerized data systems, data for 1983 and later years are not directly comparable with figures for previous years.

Source: State Department of Corrections, Administrative Services Office, Research and Statistics Section, Felony Offender Computerized Update System (FOCUS), Comprehensive Offender Monitoring and Program Assessment System (COMPAS), and Hawaii Paroling Authority Records.

Table 126.-- HAWAII PAROLING AUTHORITY STATISTICAL SUMMARY: 1987 AND 1988

[Years ended June 30]

Item	1987	1988
Number of parolees, June 30 1/	850	1,076
Parolees in Hawaii	569	718
Parolees outside Hawaii	152	192
Absconders and suspensions (cumulative)	129	166
Minimum imprisonment terms fixed	1,063	1,379
Number of persons for whom terms fixed	405	477
Persons considered for parole	494	538
Paroles tentatively granted	336	451
Paroles denied	158	87
Persons reconsidered for minimum terms previously set	287	333
Terms reset	8	14
Terms reset/parole granted	245	271
Terms undisturbed	31	42
Deferred reconsideration	3	6
Parole violation hearings	77	147
Parole revocations	77	123
Continued on parole	-	7
Deferred decision/hearing	-	1
Pardon investigations	14	11
Persons pardoned	10	10
Persons whose paroles were suspended because their whereabouts unknown	39	65
Discharges	237	130
Discharged from parole	90	88
Final discharge	20	36
Deceased	-	1
Administrative 2/	127	5

1/ In addition, provided courtesy supervision to 36 interstate cases on June 30, 1987 and 32 on June 30, 1988.

2/ Persons convicted prior to 1970, age 65 or older and classified absconder or suspended.

Source: Hawaii State Department of Corrections, 1988 Annual Report, Hawaii Paroling Authority.

Section 5

GEOGRAPHY AND ENVIRONMENT

This section relates to land and water areas, physical geography, climate, air and water quality, noise, and other geographic and environmental measurements of Hawaii. Most statistics on land use and ownership, however, appear in Section 6.

The State consists of eight major islands and 124 minor islands with a total land area of 6,425 square miles and a general coastline of 750 miles. Honolulu is 214 miles from Hilo, 1,367 miles from Kure Atoll (the westernmost end of the State), 2,397 miles from San Francisco, and 4,829 miles from Washington, D.C. The highest peak in the State is Mauna Kea, 13,796 feet above sea level; the longest stream is Kaukonahua Stream, Oahu, 33 miles in length; the most extensive lake or similar body is Kawainui Marsh, 1,000 acres; and the highest named waterfall is Kahiwa, Molokai, a 1,750-foot cascade. Various measures of air pollution, such as suspended particulate matter, indicate that Honolulu is one of the cleanest cities in the nation. There is also relatively little water pollution: the 43 major beaches surveyed in 1988 were found to have fecal coliform levels per 100 ml. ranging from 2.0 to 256.9, and all but two of them were within EPA standards. More than 1,200 species, subspecies, and varieties of native fauna and flora have been proposed or accepted for inclusion on lists of endangered, threatened, or extinct organisms.

Climatically, Hawaii is marked by remarkably balmy temperatures and wide variations in rainfall. The all-time temperature range at Honolulu International Airport, for example, was from 53° to 94°F. Average precipitation, however, ranges from less than nine inches at Kawaihae to 444 inches atop Waialeale. The largest volcanic eruption in Island history (begun in 1983) had produced more than 1.5 billion cubic yards of lava by September 1989. The worst earthquake (1868) attained 7.5 on the Richter scale, the highest tsunami wave (1946) reached 56 feet, and the most destructive hurricane (Iwa, 1982) gusted to 117 miles per hour. Water withdrawn for use in 1985 averaged 1.4 billion gallons per day, compared with 2.9 billion in 1980 and 2.8 billion in 1975. Among 31 neighborhoods on Oahu, median noise levels in 1981-1982 ranged from 37 decibels (in Mililani) to 57 decibels (in Pawaa).

Important sources of data include the U.S. Geological Survey, National Ocean Survey, National Weather Service, U.S. Bureau of the Census Geography Division, the Division of Water and Land Development of the State Department of Land and Natural Resources, the State Department of Health, and the University of Hawaii Institute of Geophysics. Detailed information is given in Atlas of Hawaii, 2nd edition, published by the University of Hawaii Press in 1983. National data are reported in Statistical Abstract of the United States: 1989, Section 6.

Table 127.-- GREAT CIRCLE DISTANCES BETWEEN SPECIFIED PLACES

Places	Statute miles	Kilometers
DISTANCES FROM HONOLULU INTERNATIONAL AIRPORT		
Hawaiian Islands locations:		
Hilo, Hawaii	214	344
Kailua, Kona, Hawaii	168	270
Kahului, Maui	98	158
Lanai Airport	72	116
Molokai Airport	54	87
Lihue, Kauai	103	166
Puuwai, Niihau	152	245
Nihoa	283	455
Necker Island	520	837
French Frigate Shoals	556	895
Gardner Pinnacles	688	1,107
Maro Reef	851	1,369
Laysan Island	936	1,506
Lisianski Island	1,065	1,714
Pearl and Hermes Atoll	1,208	1,944
Midway Islands	1,309	2,106
Kure Atoll	1,367	2,200
Other Pacific locations:		
Apra Harbor, Guam	3,806	6,124
Auckland, New Zealand	4,393	7,068
Hong Kong	5,541	8,915
Johnston Atoll	820	1,319
Kingman Reef	1,073	1,726
Kiritimati (Christmas Island), Kiribati	1,344	2,163
Majuro, Marshall Islands	2,271	3,654
Manila, Philippines	5,293	8,516
Nuku Hiva, Marquesas Islands	2,400	3,864
Pago Pago, American Samoa	2,606	4,193
Palmyra Atoll	1,101	1,772
Papeete, Tahiti	2,741	4,410
Suva, Fiji	3,159	5,083
Sydney (Port Jackson), Australia	5,070	8,158
Tokyo, Japan	3,847	6,190
Wake Island	2,294	3,691
North and South American locations:		
Anchorage, Alaska	2,781	4,475
Cape Horn, Chile	7,457	11,998

Continued on next page.

Table 127.-- GREAT CIRCLE DISTANCES BETWEEN SPECIFIED PLACES -- Con.

Places	Statute miles	Kilometers
DISTANCES FROM HONOLULU INT. AIRPORT--Con.		
North and South American locations, con.:		
Chicago, Illinois	4,179	6,724
Cristobal, Canal Zone	5,214	8,389
Los Angeles, California	2,557	4,114
Miami, Florida	4,856	7,813
New York, New York	4,959	7,979
Portland, Oregon	2,595	4,175
San Diego, California	2,610	4,199
San Francisco, California	2,397	3,857
Seattle, Washington	2,679	4,311
Vancouver, B.C.	2,709	4,359
Tijuana, Mexico	2,616	4,209
Washington, D.C.	4,829	7,770
London, England	7,226	11,627
Bombay, India	8,010	12,888
Ghanzi, Botswana 1/	12,417	19,979
Equator, due south of Honolulu	1,470	2,367
North Pole	4,740	7,631
OTHER DISTANCES		
Hilo to --		
Los Angeles, California	2,447	3,937
San Francisco, California	2,315	3,725
Kure Atoll to --		
Cape Kumukahi, Puna, Hawaii 2/	1,523	2,451
Log Point, Elliot Key, Florida 3/	5,852	9,416
Tokyo, Japan	2,486	4,000
West Quoddy Head, Maine	5,788	9,313

1/ Ghanzi, Botswana, is Honolulu's antipode, that is, the point precisely opposite to it on the globe.

2/ Cape Kumukahi and Kure Atoll are the points farthest apart in the Hawaiian Archipelago and State of Hawaii.

3/ Log Point and Kure Atoll are the points farthest apart in the fifty states.

Source: U. S. Department of the Interior, Geological Survey, Elevations and Distances in the United States (1973), pp. 22-23, and records.

Table 128.-- TIME DIFFERENTIALS BETWEEN HONOLULU AND SELECTED CITIES: 1982-1989

City	June		December	
	Day	Hour	Day	Hour
Honolulu, Hawaii	Same	12:00 N	Same	12:00 N
Papeete, Tahiti	Same	12:00 N	Same	12:00 N
Anchorage, Alaska	Same	2:00 PM	Same	1:00 PM
San Francisco, California	Same	3:00 PM	Same	2:00 PM
Denver, Colorado	Same	4:00 PM	Same	3:00 PM
Mexico City, Mexico	Same	4:00 PM	Same	4:00 PM
Houston, Texas	Same	5:00 PM	Same	4:00 PM
Chicago, Illinois	Same	5:00 PM	Same	4:00 PM
Atlanta, Georgia	Same	6:00 PM	Same	5:00 PM
Toronto, Canada	Same	6:00 PM	Same	5:00 PM
Washington, D.C.	Same	6:00 PM	Same	5:00 PM
New York, N.Y.	Same	6:00 PM	Same	5:00 PM
Rio de Janeiro, Brazil	Same	7:00 PM	Same	7:00 PM
London, United Kingdom	Same	11:00 PM	Same	10:00 PM
Bonn, West Germany	Same	12:00 Mid.	Same	11:00 PM
Vienna, Austria	Same	11:00 PM	Same	11:00 PM
Cairo, Egypt	Same	12:00 Mid.	Same	12:00 Mid.
Moscow, Soviet Union	Next	2:00 AM	Next	1:00 AM
Bombay, India	Next	3:30 AM	Next	3:30 AM
Singapore, Singapore	Next	6:00 AM	Next	6:00 AM
Hong Kong, Hong Kong	Next	7:00 AM	Next	6:00 AM
Manila, Philippines	Next	6:00 AM	Next	6:00 AM
Shanghai, China	Next	7:00 AM	Next	6:00 AM
Seoul, South Korea	Next	7:00 AM	Next	7:00 AM
Tokyo, Japan	Next	7:00 AM	Next	7:00 AM
Agana, Guam	Next	9:00 AM	Next	8:00 AM
Sydney, Australia	Next	8:00 AM	Next	9:00 AM
Auckland, New Zealand	Next	10:00 AM	Next	11:00 AM
Suva, Fiji	Next	10:00 AM	Next	10:00 AM
Pago Pago, American Samoa	Same	11:00 AM	Same	11:00 AM

Source: Doris Chase Doane, Time Changes in the USA, Rev. Ed. (1985) and Time Changes in the World, Rev. Ed. (1982); The World Almanac 1989, p. 308; GTE Hawaiian Tel, Oahu Telephone Directory, February 1, 1989, p. 26A.

Table 129.-- LATITUDES AND LONGITUDES OF SELECTED PLACES

Island and place	Latitude (North)	Longitude (West)
Hawaii:		
Hilo (General Lyman Field)	19°43'	155°04'
Cape Kumukahi	19°31'	154°49'
Ka Lae	18°55'	155°41'
Keahole Point	19°44'	156°04'
Upolu Point	20°16'	155°51'
Maui:		
Wailuku	20°53'	156°30'
Kahului (Airport)	20°54'	156°26'
Hana	20°45'	155°59'
Cape Hanamanioa	20°35'	156°25'
Lahaina	20°52'	156°41'
Kahoolawe:		
Puu Moaulanui	20°34'	156°34'
Lanai:		
Airport	20°48'	156°57'
Molokai:		
Kaunakakai	21°05'	157°02'
Laau Point	21°06'	157°19'
Cape Halawa	21°10'	156°43'
Oahu:		
Honolulu: International Airport	21°20'	157°55'
Aloha Tower	21°19'	157°52'
Kaena Point	21°35'	158°17'
Kahuku Point	21°43'	157°59'
Makapuu Point	21°19'	157°39'
Diamond Head	21°16'	157°49'
Kauai:		
Lihue (Kauai Airport)	21°59'	159°21'
Mana	22°02'	159°46'
Kilauea Point	22°14'	159°24'
Niihau:		
Puuwai	21°54'	160°12'
Kure Atoll	28°25'	178°25'

Source: U.S. Board on Geographic Names, Gazetteer No. 24, Hawaiian Islands (1956); U.S. Department of Commerce, National Climatic Data Center, Local Climatological Data, Annual Summary with Comparative Data, 1984 for Hilo, Kahului, Honolulu, and Lihue; Bernice P. Bishop Museum, Geography and Map Division, records; Hawaii State Department of Accounting and General Services, Survey Division, records.

Table 130.-- WIDTHS AND DEPTHS OF CHANNELS

Channel 1/	Width 2/		Depth 3/	
	Statute miles	Kilometers	Feet	Meters
Alenuihaha (Hawaii-Maui)	29.6	47.6	6,810	2,076
Alalakeiki (Kahoolawe-Maui)	6.7	10.8	822	251
Kealaikahiki (Kahoolawe-Lanai)	17.8	28.6	1,086	331
Auau (Lanai-Maui)	9.5	15.3	252	77
Kalohi (Lanai-Molokai)	9.2	14.8	540	165
Pailolo (Maui-Molokai)	8.8	14.2	846	258
Kaiwi (Molokai-Oahu)	25.8	41.5	2,202	671
Kauai (Oahu-Kauai)	72.1	116.0	10,890	3,319
Kaulakahi (Kauai-Niihau)	17.2	27.7	3,570	1,088
Niihau-Kaula	21.5	34.6	5,364	1,635
Niihau-Nihoa	133.9	215.5	14,550	4,435
Nihoa-Necker I.	179.6	289.0	12,600	3,840
Necker I.-French Frigate Shoals	100.3	161.4	12,780	3,895
French Frigate Shoals-Gardner Pinnacles ..	137.0	220.5	11,448	3,489
Gardner Pinnacles-Maro Reef	155.5	250.3	12,300	3,749
Maro Reef-Laysan I.	65.9	106.1	8,280	2,524
Laysan I.-Lisianski I.	137.4	221.1	16,830	5,130
Lisianski I.-Pearl and Hermes Atoll	162.6	261.7	17,400	5,304
Pearl and Hermes Atoll-Midway Islands	86.9	139.9	15,840	4,828
Midway Islands-Kure Atoll	57.1	91.9	12,960	3,950

1/ Listed in geographic order, from east to west. The channels between major islands were measured between the following points:
Alenuihaha: Upolu Pt., Hawaii, to Puhilele Pt., Maui;
Alalakeiki: Lae o ka Ule, Kahoolawe, to Nukuele Pt., Maui;
Kealaikahiki: Makaalae, Kahoolawe, to Kamaiki Pt., Lanai;
Auau: Kikoa Pt., Lanai, to Lahaina, Maui;
Kalohi: Wahie Pt., Lanai, to Kamalo, Molokai;
Pailolo: Lipoa Pt., Maui, to Pohakuloa, Molokai;
Kaiwi: Ilio Pt., Molokai, to Makapuu Pt., Oahu;
Kauai: Kaena Pt., Oahu, to Kamilo Pt., Kauai;
Kaulakahi: Mana Pt., Kauai, to Kaunuopou, Niihau.

2/ Width measured in statute miles between designated points on National Ocean Survey and Coast and Geodetic Survey charts. Width in kilometers calculated from miles (1 mile = 1.60934 km.).

3/ Depths given are the deepest soundings noted at or near the line joining the two designated points, on National Ocean Survey and Coast and Geodetic Survey charts. Depths measured in fathoms and converted to feet and meters (1 fathom = 6 feet = 1.8288 meters).

Source: Compiled by Lee S. Motteler, Geography and Map Division, Bernice P. Bishop Museum, in November 1980.

Table 131.-- GENERAL COASTLINE AND TIDAL SHORELINE OF COUNTIES AND ISLANDS

County and island	General coastline 1/		Tidal shoreline 2/	
	Statute miles	Kilometers 3/	Statute miles	Kilometers 3/
State total	750	1,207	1,052	1,693
Counties:				
Hawaii	266	428	313	504
Maui, including Kalawao	210	338	343	552
Honolulu	137	220	234	377
Kauai	137	220	162	261
Islands: 4/				
Hawaii	266	428	313	504
Maui	120	193	149	240
Kahoolawe	29	47	36	58
Lanai	47	76	52	84
Molokai	88	142	106	171
Oahu	112	180	209	336
Kauai	90	145	110	177
Niihau	45	72	50	80
Kaula	2	3	2	3
Northwestern Hawaiian Islands 5/	25	40	25	40
Nihoa	3	5	3	5
Necker Island	2	3	2	3
French Frigate Shoals	6	10	6	10
Laysan Island	6	10	6	10
Lisianski Island	3	5	3	5
Kure Atoll	5	8	5	8

1/ Figures are lengths of general outline of seacoast. Data for the four islands of Maui County are not consistent with the reported county total.

2/ Shoreline of outer coast, offshore islands, bays, rivers, and creeks is included to the head of tidewater or to a point where tidal waters narrow to a width of 100 feet.

3/ Derived from data expressed in statute miles; independently rounded and accordingly may not add exactly to indicated totals and subtotals. 1 mi. = 1.609 km.

4/ Data are not available for five minor islands: Molokini, Lehua, Gardner Pinnacles, Maro Reef, and Pearl and Hermes Atoll.

5/ Excludes the Midway Islands, which are part of the Hawaiian Archipelago but not legally part of the State of Hawaii. Midway has a general coastline of 20 miles and a tidal shoreline of 33 miles.

Source: U.S. Department of Commerce, National Ocean Survey, The Coastline of the United States (1975) and records.

Table 132.-- LAND AND WATER AREA OF COUNTIES AND ISLANDS: 1989

[See maps on pages 6 and 7]

County or island	Square miles Total	Land 2/	Inland water 3/
State total	6,470.8	6,425.2	45.6
Counties: 4/			
Hawaii	4,035.2	4,034.2	1.0
Maui	1,171.0	1,161.6	9.4
Kalawao	14.3	13.3	1.0
Honolulu 5/	620.5	596.3	24.2
Kauai 5/	629.8	619.8	10.0
Islands: 4/			
Hawaii	4,035.2	4,034.2	1.0
Maui 6/	734.5	728.6	5.9
Kahoolawe	45.9	45.0	0.9
Lanai	141.2	140.4	0.8
Molokai	263.7	260.9	2.8
Oahu	617.6	593.6	24.0
Kauai	558.2	549.4	8.8
Niihau 7/	71.1	70.0	1.1
Kaula	0.4	0.4	-
Northwestern Hawaiian Islands 8/	2.910	2.690	0.220
Nihoa	0.238	0.238	-
Necker Island	0.105	0.105	-
French Frigate Shoals	0.081	0.081	-
Gardner Pinnacles	0.011	0.011	-
Maro Reef	Awash	Awash	Awash
Laysan Island	1.454	1.234	0.220
Lisianski Island	0.586	0.586	-
Pearl and Hermes Atoll	0.106	0.106	-
Kure Atoll	0.329	0.329	-

Continued on next page.

Table 132.-- LAND AND WATER AREA OF COUNTIES AND ISLANDS: 1989 -- Con.

County or island	Square kilometers 1/		Acres 1/	
	Total	Land 2/	Total	Land 2/
State total	16,759.3	16,641.2	4,141,312	4,112,128
Counties: 4/				
Hawaii	10,451.1	10,448.5	2,582,528	2,581,888
Maui	3,032.9	3,008.5	749,440	743,424
Kalawao	37.0	34.4	9,152	8,512
Honolulu 5/	1,607.1	1,544.4	397,120	381,632
Kauai 5/	1,631.2	1,605.3	403,072	396,672
Islands: 4/				
Hawaii	10,451.1	10,448.5	2,582,528	2,581,888
Maui 6/	1,902.3	1,887.1	470,080	466,304
Kahoolawe	118.9	116.5	29,376	28,800
Lanai	365.7	363.6	90,368	89,856
Molokai	683.0	675.7	168,768	166,976
Oahu	1,599.6	1,537.4	395,264	379,904
Kauai	1,445.7	1,422.9	357,248	351,616
Niihau 7/	184.1	181.3	45,504	44,800
Kaula	1.0	1.0	256	256
Northwestern Hawaiian Islands 8/	7.5	7.0	1,862	1,722
Nihoa	0.6	0.6	152	152
Necker Island	0.3	0.3	67	67
French Frigate Shoals	0.2	0.2	52	52
Gardner Pinnacles	0.0	0.0	7	7
Maro Reef	Awash	Awash	Awash	Awash
Laysan Island	3.8	3.2	931	790
Lisianski Island	1.5	1.5	375	375
Pearl and Hermes Atoll	0.3	0.3	68	68
Kure Atoll	0.9	0.9	211	211

1/ Areas in square kilometers and acres were calculated directly from the figures shown for square miles; these equivalents were independently rounded, and hence may not add exactly to the indicated totals and subtotals. 1 square mile = 640 acres = 2.58999 square kilometers.

2/ Dry land and land temporarily or partially covered by water, as marshland, swamps, etc.; streams and canals under one-eighth statute mile wide; and lakes, reservoirs, and ponds under 40 acres of area.

Continued on next page.

Table 132.-- LAND AND WATER AREA OF COUNTIES AND ISLANDS: 1989 -- Con.

3/ Permanent inland water surface, such as lakes, reservoirs, and ponds having 40 acres or more of area; streams, sloughs, estuaries, and canals one-eighth statute mile or more in width; deeply indented embayments and sounds, and other coastal waters behind or sheltered by headlands or islands separated by less than 1 nautical mile of water, and islands having less than 40 acres of area.

4/ Because of rounding, island figures may not add to county figures.

5/ Reflects inclusion of Kaula in the County of Kauai rather than in the City and County of Honolulu. Kaula was transferred to the County of Kauai by Act 245, S.L.H. 1988, approved June 9, 1988.

6/ Molokini, offshore of Maui, not measured; other sources give the area of Molokini as 18.6 acres (0.03 square miles or 0.075 square kilometers).

7/ Includes Lehua, elsewhere reported as 243 acres (0.38 square miles or 0.98 square kilometers).

8/ Exclusive of the Midway Islands, which are part of the Hawaiian Archipelago but not legally part of the State of Hawaii.

Source: Unpublished data supplied by the Geography Division, U.S. Bureau of the Census, May 5, 1983; cited in the Hawaii State Department of Planning and Economic Development, Remeasurements of the Area of Hawaii, 1982 (Statistical Memorandum 83-6, May 18, 1983).

Table 133.-- LAND AND WATER AREA WITHIN THE FISHERY CONSERVATION ZONE

[Land and water area within the 200 nautical mile Fishery Conservation Zone surrounding the Hawaiian Archipelago]

Unit	Total area	Land area	Water area
Square nautical miles	634,023	4,852	629,171
Square statute miles	839,623	6,425	833,198
Square kilometers	2,174,626	16,641	2,147,985

Source: Marine Surveys and Maps, National Ocean Survey, National Oceanic and Atmospheric Administration, information supplied September 15, 1978.

Table 134.-- MAJOR AND MINOR ISLANDS IN THE HAWAIIAN ARCHIPELAGO

Classification	Number of islands		Land area (square miles)
	Total	Inhabited, 1980 1/	
All named islands	137	15	6,427.0
Major islands	8	7	6,419.4
Named minor islands 2/	129	8	7.6
Offshore of major islands	96	4	2.6
Northwestern Hawaiian Islands 3/	33	4	4.9
Part of State	28	3	2.9
Not part of State (Midway Islands)	5	1	2.0

1/ For populations, see present volume, table 4.
2/ For individual data, see DPED Report GN-6, pp. 3-7.
3/ The 33 islets are in 10 clusters.
Source: Hawaii State Department of Planning and Economic Development, Geographic Names Approved, Second Quarter 1969 (Report GN-6, July 8, 1969), p. 8; Data Book 1986, table 152.

Table 135.-- AREA AND DEPTH OF SELECTED CRATERS

Island and crater	Area (acres)	Maximum depth (feet)
Hawaii:		
Kilauea Caldera	2,319	476
Mokuaweoweo Crater 1/	2,221	572
Maui:		
Haleakala Crater 2/	12,575	3,028
Oahu:		
Diamond Head Crater	255	562
Koko Crater	133	968
Punchbowl Crater	62	140

1/ Data exclude North and South Pits.
2/ Data exclude Koolau and Kaupo Gaps.
Source: Measured from U.S. Geological Survey maps by DBED.

Table 136.-- ELEVATIONS OF MAJOR SUMMITS

[Elevation of the highest point on each island
and other important peaks]

Island and summit	Feet	Meters
Hawaii:		
Mauna Kea 1/	13,796	4,205
Mauna Loa 2/	13,679	4,169
Hualalai	8,271	2,521
Kaumu o Kaleihoohie	5,480	1,670
Kilauea (Uwekahuna)	4,093	1,248
Kilauea (Halemaumau Rim)	3,660	1,116
Kahoolawe:		
Puu Moaulanui	1,483	452
Puu Moaulaiki	1,434	437
Molokini	160	49
Maui:		
Haleakala (Red Hill)	10,023	3,055
Haleakala (Kaupo Gap)	8,201	2,500
Puu Kukui	5,788	1,764
Iao Needle	2,250	686
Lanai:		
Lanaihale	3,370	1,027
Molokai:		
Kamakou	4,961	1,512
Olokui	4,606	1,404
Kaunuohua	4,535	1,382
Kalaupapa Lookout	1,600	488
Mauna Loa (Kukui)	1,430	436
Oahu:		
Kaala	4,017	1,224
Puu Kalena	3,504	1,068
Konahuanui	3,150	960
Tantalus	2,013	614
Olomana	1,643	501
Koko Crater (Kohelepelepe)	1,208	368
Nuuanu Pali Lookout	1,186	361
Diamond Head	760	232
Koko Head	642	196
Punchbowl	500	152

Continued on next page.

Table 136.-- ELEVATIONS OF MAJOR SUMMITS -- Con.

Island and summit	Feet	Meters
Kauai:		
Kawaikini	5,243	1,598
Waialeale	5,148	1,569
Namolokama Mountain	4,421	1,348
Kalalau Lookout	4,120	1,256
Haupu	2,297	700
Sleeping Giant (Nonou)	1,241	378
Niihau:		
Paniau	1,281	390
Lehua	699	213
Kaula	550	168
Nihoa:		
Millers Peak	910	277
Necker Island:		
Summit Hill	277	84
French Frigate Shoals:		
La Perouse Pinnacles	135	41
Gardner Pinnacles	190	58
Maro Reef	Awash	Awash
Laysan Island	35	11
Lisianski Island	20	6
Pearl and Hermes Atoll	10	3
Midway Islands	12	4
Kure Atoll	20	6

1/ According to the *1988 Guinness Book of World Records* (p. 131), "The world's tallest mountain measured from its submarine base (3,280 fathoms) in the Hawaiian Trough to peak is Mauna Kea ... with a combined height of 33,476 ft, of which 13,796 ft are above sea level."

2/ *Guinness* (p. 131) describes Mauna Loa as having "dimensions, but not height, [which] exceed those of Mt Everest .... The axes of its elliptical base, 16,322 ft below sea level, have been estimated at 74 mi and 53 mi."

Source: U.S. National Cartographic Information Center, data provided October 11, 1978; U.S. Geological Survey topographic maps; E. D. Baldwin, 1883 Molokini figure on Hawaiian Government Survey Reg. Map No. 1276; National Geodetic Survey 1969 figure for Kaala, provided by U.S. Geological Survey, Honolulu office, July 23, 1984; U.S.S. Tanager survey, 1923 (for Pearl and Hermes Atoll).

Table 137.-- MAJOR STREAMS, BY ISLANDS: 1989

Island	Feature or stream	Length or ave. discharge
Longest water feature (miles):		
Hawaii	Wailuku River	32.0
Maui	Kalialinui-Waiale Gulch	18.0
Kahoolawe	Ahupu Gulch	4.0
Lanai	Maunalei-Waialala Gulch	12.9
Molokai	Wailau-Pulena Stream	6.5
Oahu	Kaukonahua Stream (So. Fork)	33.0
Kauai	Waimea River-Poomau Stream	19.5
Niihau	Keanaulii-Puniopo Valley	5.9
Largest perennial stream (miles): 1/		
Hawaii	Wailuku River	22.7
Maui	Palikea Stream	7.8
Molokai	Wailau-Pulena Stream	6.5
Oahu	Kaukonahua Stream	30.0
Kauai	Waimea River	19.7
Streams with greatest average discharge (million gal./day):		
Hawaii	Wailuku River	185
Maui	Iao Stream	50
Molokai	Wailau Stream	30
Oahu	Waikele Stream	25
Kauai	Hanalei River	150

1/ Estimated on basis of drainage area rather than stream runoff. Other major streams include Wailoa River, Hawaii (1/2-mile long); Honokohau Stream (9.4 miles long) and Iao Stream (5), both on Maui; Halawa Stream (6.4), Waikolu Stream (4.7), and Pelekunu (2.3), all on Molokai; Waikele Stream (15.3), Kipapa Stream (12.8), Waiakakalaua Stream (11.8), Nuuanu Stream (4), and Ala Wai Canal (1.9), all on Oahu; and the Makaweli River (15.1), Wainiha River (13.8), Hanapepe River (13.3), and Wailua River (11.8), all on Kauai.

Source: Longest water feature from U.S. Geological Survey, records; other data from Hawaii State Department of Land and Natural Resources, Division of Water and Land Development, records.

Table 138.-- LAKES AND LAKE-LIKE WATERS, BY ISLANDS: 1989

Island and lake	Type	Elevation (feet)	Area 1/ (acres)	Maximum depth (feet)
Hawaii:				
Aimakapa	Coastal pool .	(SL)	15	(NA)
Green Lake	Lake	3	2	20
Lake Waiau 2/	Lake	13,020	2	10
Waiakea Pond	Tidal pond ...	(SL)	27	7
Maui:				
Kanaha Pond	Marsh	(SL)	41	3
Kealia Pond	Marsh	(SL)	500	(NA)
Waieleele	Pond	6,690	0.5	21
Molokai:				
Kauhako	Pool	(SL)	0.9	814
Kualapuu Reservoir ..	Reservoir	821	100	50
Meyer Lake	Impoundment ..	2,021	6-10	5
Oahu:				
Ho'omaluhia	Reservoir	202	90	90
Kaelepulu Pond	Lake	(SL)	198	(NA)
Kawainui Marsh	Marsh	(SL)	1,000	(NA)
Salt Lake	Lake	(SL)	7	2
Wahiawa Reservoir ...	Reservoir	842	302	85
Kauai:				
Nomilu Fishpond	Pond	(SL)	20	66
Waita Reservoir	Reservoir	241	424	23
Niihau:				
Halalii Lake	Playa	(SL)	841-865	(NA)
Halulu Lake	Playa	(SL)	182-371	(NA)
Laysan:				
Laysan Lagoon	Closed lagoon	(SL)	161	16

NA Not available.

SL Sea level.

1/ Ranges shown for Meyer Lake, Halalii Lake, and Halulu Lake reflect differences in estimates between sources.

2/ Highest lake in the State and third highest in the United States.

Continued on next page.

Table 138.-- LAKES AND LAKE-LIKE WATERS, BY ISLANDS: 1989 - Con.

Source: J.A. Maciolek, Lakes and Lake-like Waters of the Hawaiian Archipelago (Bernice P. Bishop Museum, Occasional Papers, Vol. XXV, No. 1, April 30, 1982); Hawaii State Department of Land and Natural Resources, Division of Water and Land Development, February 6, 1989; Hawaii State Department of Planning and Economic Development, Resource Management Plan for Kawainui Marsh (March 1983); William H. Meyer, U.S. Fish and Wildlife Service, transmittal letter (to DPED, Coastal Zone Management Program), for Kealia Pond National Wildlife Refuge, Maui, Hawaii, Final EIS (August 1981); Salt Lake planimeter measurement by Office of State Planning, 1988.

Table 139.-- MAJOR NAMED WATERFALLS, BY ISLANDS: 1989

Island	Waterfall	Height (feet)		Horizontal distance (feet)
		Sheer drop	Cascade	
Hawaii ..	Kaluahine	...	620	400
	Akaka	442	...	...
Maui	Honokohau	...	1,120	500
Molokai .	Kahiwa	...	1,750	1,000
	Papalaua	...	1,200	500
Oahu	Kaliuwaa (Sacred) 1/ .	80	1,520	3,000
Kauai ...	Waipoo (2 falls)	...	800	600
	Awini	...	480	500

1/ Sheer drop refers to northernmost fall of a cascade of six falls.

Source: U.S. Geological Survey, records; Hawaii State Department of Land and Natural Resources, Division of Water and Land Development, records.

Table 140.-- MISCELLANEOUS GEOGRAPHIC STATISTICS, BY ISLANDS

Island	Extreme length (miles)	Extreme width (miles)	Miles of sea cliffs with heights 1,000 ft. or more 1/	Miles from coast of most remote point	Percent of area within 5 miles of coast
The State ..	...	...	33	28.5	48.6
Hawaii	93	76	4	28.5	30.0
Maui	48	26	-	10.6	76.1
Kahoolawe	11	6	-	2.4	100.0
Lanai	18	13	1	5.2	100.0
Molokai	38	10	14	3.9	100.0
Oahu	44	30	-	10.6	79.0
Kauai	33	25	11	10.8	67.0
Niihau	18	6	3	2.4	100.0

Island	Percent of area with elevation --		Approximate mean altitude (feet)	Percent of area with slope --	
	Less than 500 feet	2,000 feet or more		Less than 10 percent	20 percent or more
The State ..	20.8	50.9	3,030	63.5	17.0
Hawaii	12.0	68.4	3,950	76.0	4.0
Maui	24.9	41.4	2,390	38.5	36.0
Kahoolawe	38.9	0	600	60.0	9.0
Lanai	24.8	6.3	1,140	61.0	16.0
Molokai	37.3	17.8	1,150	53.0	26.0
Oahu	45.3	4.6	860	42.5	45.5
Kauai	35.6	24.0	1,380	33.5	50.5
Niihau	78.2	0	530	68.0	12.5

1/ According to Lee S. Motteler, Geography and Map Division, Bernice P. Bishop Museum, the sea cliffs along the northeastern coast of Molokai between Umilehi Point and Puukaoku Point drop 3,250 feet at an average slope of 58 degrees. These cliffs have been described by the Guinness Book of World Records (1988 edition, p. 138) as "the highest sea cliffs yet pinpointed anywhere in the world."

Source: Hawaii State Department of Planning and Economic Development, Hawai'i, the Natural Environment (1974), p. 19; U.S. Geological Survey, Elevations and Distances in the United States (1978), pp. 4-5.

Table 141.-- VOLCANIC ERUPTIONS: 1969 TO 1989

[Complete through September 1, 1989. Four volcanoes have erupted in historical times: Haleakala, last active around 1790; Hualalai, last active in 1800-1801; and Kilauea and Mauna Loa, both active in recent years and included in this table]

Volcano and date of outbreak	Repose period since previous eruption (months)	Duration (days)	Location 1/	Elevation (feet)	Area (square miles)	Volume (mil. cubic yards)
Mauna Loa:						
1975: July 5	301	<1	S	13,000	5.2	35.0
1984: March 25	104	22	S, ER	13,200-9,400	11±	230.0
Kilauea:						
1969: Feb. 22	4.0	6	ER	3,100-2,900	2.3	22.0
May 24	2.0	867	ER	3,150	19.3	242.0
1971: Aug. 14	-	<1	C	3,660-3,600	0.8	12.4
Sept. 24	-	5	C, SWR	3,740-2,730	1.5	10.5
1972: Feb. 4	4.3	455	ER	3,150	13.5	163.8
1973: May 5	-	<1	ER	3,340-3,250	0.1	1.6
Nov. 10	-	30	ER	3,250-2,900	0.4	3.7
Dec. 12	0.1	203	ER	3,150	3.1	39.3
1974: July 19	-	3	C, ER	3,600-3,520	1.2	9.0
Sept. 19	2.0	<1	C	3,680	0.4	14.0
Dec. 31	3.4	<1	C	3,600	2.9	19.6
1975: Nov. 29	11.0	<1	C	3,600-3,520	0.1	.3
1977: Sept. 13	21.5	18	ER	2,080-1,600	3.0	45.0
1979: Nov. 16	26.3	1	ER	3,270-3,200	0.1.	.8
1982: April 30	29.5	<1	C	3,630	0.1	.26
Sept. 25	4.9	<1	C	3,620	0.3	3.9
1983: Jan. 3 2/	3.3	2,431	ER	2,560-2,120	25.0	1,500

1/ C, caldera; ER, east rift; S, summit; SWR, southwest rift.

2/ Still in progress, September 1, 1989. As of that time, there had been 48 separate episodes. These had destroyed 72 housing units and 3 other structures and added about 106 acres to the area of the island.

Source: Gordon A. Macdonald and Douglass H. Hubbard, Volcanoes of the National Parks in Hawaii, 8th edition (Hawaii Natural History Association, 1982), pp. 10, 19, 34, and 58, as updated by the staff of the Hawaiian Volcano Observatory.

Table 142.-- EARTHQUAKES OF MAGNITUDE 5 OR GREATER: 1975 TO 1989

[Complete to January 31, 1989]

Date and time (HST)		Location	Magnitude (Richter Scale)
1975:	Jan. 2, 3:27 AM ...	Near Pahala, Hawaii	5.0
	Nov. 29, 3:35 AM ..	Puna, Hawaii	5.7
	Nov. 29, 4:47 AM ..	Puna, Hawaii	7.2
1976:	Feb. 20, 7:51 PM ..	Between Maui and Hawaii ..	5.1
1977:	Jan. 22, 12:36 PM .	100 miles S. of Kauai	5.1
	Apr. 20, 6:49 PM ..	Hamakua, Hawaii	5.0
	Jun. 5, 11:42 PM ..	Puna, Hawaii	5.1
1979:	Mar. 29, 11:06 PM .	40 miles S.W. of Oahu	5.5
	Sept. 21, 9:59 PM .	Puna, Hawaii	5.5
1981:	Mar. 5, 4:09 AM ...	Molokai area	5.3
	Nov. 10, 3:02 AM ..	Kilauea, Hawaii	5.3
1982:	Jan. 21, 11:52 AM .	Mauna Loa, Hawaii	5.5
	Jan. 21, 12:29 PM .	Mauna Loa, Hawaii	5.5
	May 14, 6:26 AM ...	Off Kawaihae, Hawaii	5.0
1983:	Mar. 20, 5:18 PM ..	Off Kalapana, Hawaii	5.0
	Sept. 9, 6:30 AM ..	Off Kalapana, Hawaii	5.4
	Nov. 16, 6:13 AM ..	S.E. flank of Mauna Loa ..	6.7
1984:	Jun. 8, 5:34 PM ...	80 miles S. of Honolulu ..	5.3
1986:	Apr. 26, 7:19 AM ..	28 miles N.E. of Maui	5.1
1987:	Feb. 3, 4:22 PM ...	26 miles S. of Kahoolawe .	5.0
1988:	March 24, 2:30 PM .	30 miles S. of Kahoolawe .	5.0
	March 27, 5:33 PM .	30 miles S. of Kahoolawe .	5.5
	June 7, 12:49 AM ..	S. flank of Kilauea	5.0
	July 3, 7:38 PM ...	Near Pahala	5.3
	July 22, 10:29 AM .	Near French Frigate Shoals	5.0

Source: Hawaii Institute of Geophysics, records; Hawaii Volcano Observatory Summaries; U.S. Geological Survey, National Earthquake Information Service. Data provided by Professor Augustine S. Furumoto, Hawaii Institute of Geophysics, University of Hawaii, August 28, 1989.

Table 143.-- EARTHQUAKES WITH HONOLULU INTENSITIES OF V OR GREATER: 1859 TO 1983

[Based on data for 113 earthquakes observed in Honolulu, from 1859 through 1983]

Date		Epicentral location	Magnitude (Richter scale)	Honolulu average intensity (Modified Mercalli Scale 1/)
1861:	Dec. 5 ..	Molokai-Lanai vic. (?) .	(NA)	Mid V
	Dec. 15 .	Molokai-Lanai vic. (?) .	(NA)	Lower V - mid V
1868:	Apr. 2 ..	SE coast of Hawaii	7.5	Upper IV - lower V
	Apr. 4 ..	Maui group vicinity (?)	(NA)	Lower V
1871:	Feb. 19 .	S coast of Lanai	7.0	Upper VI - lower VII
1895:	Dec. 8 ..	Oahu vicinity (?)	(NA)	Mid V
1926:	Mar. 19 .	N of Kohala, Hawaii	(NA)	Upper IV - lower V
1929:	Oct. 5 ..	W of Kona, Hawaii	6.5	Lower V
1938:	Jan. 22 .	N of Maui	6.8	Upper V - lower VI
1948:	June 28 .	S coast of Oahu	4.8	Mid VI
1964:	Oct. 11 .	Ka Lae, Hawaii	5.5	Upper IV - lower V
1973:	Apr. 26 .	Hamakua coast, Hawaii ..	6.2	Mid V
1981:	Mar. 5 ..	Kalohi Channel	5.0	Mid V

NA Not available.

1/ Modified Mercalli Scale of 1931, 1956 abridged version further simplified. This scale, which extends from I to XII, reads in part:

IV. Hanging objects swing. Vibration like passing of heavy trucks or sensation of a jolt. Standing autos rock. Windows, dishes, doors rattle. Crockery clashes. In the upper part of range wooden construction creaks.

V. Felt outdoors; direction estimated. Sleepers wakened. Liquids disturbed, some spilled. Small unstable objects displaced or upset. Doors, shutters, pictures swing. Pendulum clocks stop.

VI. Felt by all. Many frightened, run outdoors. Persons walk unsteadily. Windows, dishes, glassware broken. Knickknacks, books thrown off shelves, pictures off walls. Furniture moved, overturned. Weak plaster and masonry cracked. Small bells ring. Trees, bushes noticeably shaken.

VII. Difficulty in standing. Noticed by drivers of autos. Hanging objects quiver. Furniture broken. Damage to weak masonry. Weak chimneys broken at roof line. Fall of plaster, loose bricks, etc. Some cracks in ordinary masonry. Waves on ponds. Small slides on sand and gravel banks. Large bells ring. Irrigation ditches damaged.

Source: Doak C. Cox, "Earthquake Experience in Honolulu," The Hawaiian Journal of History, Vol. 21 (1987), pp. 98-109.

Table 144.-- TSUNAMIS WITH RUN-UP OF 2 METERS (6.6 FEET) OR MORE: 1946 TO 1989

[Complete to August 31, 1989]

Date	Maximum height in Hawaii		Deaths in Hawaii	Damage in Hawaii (dollars)
	Meters	Feet		
1946: April 1	17.0	55.8	159	26,000,000
1952: Nov. 4	6.1	20.0	-	1,000,000
1957: March 9	16.0	52.5	-	5,000,000
1960: May 22	10.5	34.5	61	23,000,000
1964: March 27	4.8	15.7	-	67,590
1975: Nov. 29	14.6	48.0	2	1,500,000

Source: George Pararas-Carayannis, Catalog of Tsunamis in the Hawaiian Islands (U.S. Coast and Geodetic Survey, May 1969); Harold G. Loomis, The Tsunami of November 29, 1975 in Hawaii (Hawaii Institute of Geophysics, December 1975), pp. 1 and 10; D.C. Cox and J. Morgan, Local Tsunamis and Possible Local Tsunamis in Hawaii (Hawaii Institute of Geophysics, Report HIG 77-14, November 1977); Doak C. Cox, Tsunami Casualties and Mortality in Hawaii (University of Hawaii, Environmental Center, June 1987), p. 39; Hawaii Institute of Geophysics, records.

Table 145.-- MAJOR DAMS: 1989

Name	Location	Height (ft.)	Length (ft.)	Volume of water impounded (acre-ft.)
Wahiawa Dam ...	Wahiawa, Oahu	98	460	7,671
Waita	Koloa, Kauai	28	3,250	6,500
Kualapuu	Kualapuu, Molokai .	58	7,100	4,265
Alexander Dam .	Kalaheo, Kauai	119	600	2,500
Ho'omaluhia Dam	Luluku, Oahu	132	2,200	2,500
Nuuanu No. 4 ..	Honolulu, Oahu	73	1,730	1,420

Source: Hawaii State Department of Land and Natural Resources, Division of Water and Land Development, records.

Table 146.-- WATER USE, BY TYPE, BY ISLANDS: 1985

[Million gallons per day]

Use	State total	Hawaii	Maui	Lanai	Molo-kai	Oahu	Kauai	Niihau
Total	1,405.14	165.80	471.96	2.99	12.76	401.56	349.53	0.54
Ground water	649.43	72.89	149.72	2.99	5.31	358.14	59.84	0.54
Domestic	182.81	15.71	14.09	0.41	1.32	140.53	10.48	0.27
Agricultural ..	333.35	0.30	135.04	2.58	3.99	144.62	46.55	0.27
Industrial	16.19	5.26	0.59	-	-	10.03	0.31	-
Thermoelectric	86.04	51.62	-	-	-	34.42	-	-
Commercial	31.04	-	-	-	-	28.54	2.50	-
Surface water ...	755.71	92.91	322.24	-	7.45	43.42	289.69	-
Domestic	16.96	9.00	7.56	-	0.07	-	0.33	-
Agricultural ..	567.86	46.12	310.26	-	7.38	43.42	160.68	-
Industrial	2.70	-	-	-	-	-	2.70	-
Thermoelectric	3.80	-	-	-	-	-	3.80	-
Hydroelectric .	164.39	37.79	4.42	-	-	-	122.18	-

Source: Data compiled by the U.S. Geological Survey and provided by the Hawaii State Department of Land and Natural Resources, Division of Water and Land Development.

Table 147.-- WATER SERVICES AND CONSUMPTION, FOR COUNTY WATERWORKS: 1984 TO 1988

Subject and geographic area	1984	1985	1986	1987	1988
NUMBER OF SERVICES, JUNE 30					
State total	185,044	188,271	192,261	197,188	201,253
City and County of Honolulu	129,080	130,884	132,775	135,418	137,323
Honolulu 1/	58,462	58,801	59,237	59,590	60,007
Rest of Oahu	70,618	72,083	73,538	75,828	77,316
Hawaii County	24,834	25,315	26,031	26,939	27,832
Kauai County	11,501	11,872	12,360	12,799	13,274
Maui County	19,629	20,200	21,095	22,032	22,824
Maui	18,413	18,964	19,807	20,708	21,474
Molokai	1,216	1,236	1,288	1,324	1,350
CONSUMPTION 2/ (MILLION GALLONS)					
State total	63,670	65,298	61,432	63,186	66,361
City and County of Honolulu	47,389	48,308	44,125	44,839	47,379
Honolulu 1/	26,636	27,218	24,454	24,857	25,826
Rest of Oahu	20,753	21,090	19,671	19,982	21,553
Hawaii County	5,409	5,666	6,039	6,503	6,575
Kauai County	3,492	3,531	3,667	3,472	3,787
Maui County	7,380	7,793	7,601	8,372	8,620
Maui	7,073	7,493	7,314	8,068	8,311
Molokai	307	300	287	304	309

1/ Maunalua to Moanalua.

2/ Year ended June 30.

Source: Data compiled by Hawaii State Department of Business and Economic Development from Honolulu Board of Water Supply, Hawaii County Department of Water Supply, Kauai Department of Water, and Maui Department of Water Supply.

Table 148.-- POLLUTION ABATEMENT COSTS AND EXPENDITURES: 1984 TO 1986

[Millions of dollars. Statistics cover manufacturing establishments with 20 employees or more]

Subject	1984	1985	1986
Total pollution abatement capital expenditures .	6.8	4.9	1.8
Gross annual cost of pollution abatement	10.8	13.3	15.3
Payments to government units	0.8	0.6	0.7
Operating costs, total	10.0	12.6	14.6
Cost recovered through abatement activities	0.6	0.4	0.5
Operating costs by form of pollutants abated:			
Air	2.3	3.7	3.8
Water	5.1	5.3	5.6
Solid waste, hazardous	0.3	0.2	1.1
Solid waste, non-hazardous	2.3	3.4	4.1
Operating costs by kind of cost:			
Depreciation	1.6	2.0	2.3
Labor	2.4	2.9	3.4
Materials and supplies	3.3	4.1	3.8
Services, equipment leasing, and other costs .	2.7	3.6	5.1

Source: U.S. Bureau of the Census, "Pollution Abatement Costs and Expenditures, 1984," Current Industrial Reports, MA-200(84)-1 (May 1986), pp. 16, 34, and 49; "Pollution Abatement Costs and Expenditures, 1985," Current Industrial Reports, MA-200(85)-1 (April 1987), pp. 18, 37, and 52; "Pollution Abatement Costs and Expenditures, 1986," Current Industrial Reports, MA-200 (86)-1 (April 1989), pp. 20, 37, and 53.

Table 149.-- WATER QUALITY AT SPECIFIED PUBLIC BEACHES: 1986 TO 1988

Island and beach	Number of samples, 1988	Fecal coliform density 1/ (geometric mean, MPN/100 ml)		
		1986	1987	1988
Hawaii (Hilo Shoreline Area):				
Exit of Ice Pond	7	15.1	19.4	30.9
Leileiwi Beach Park	8	116.0	89.7	33.1
Onekahakaha	8	7.4	15.2	8.8
Puhi Bay No. 3	8	48.8	22.7	22.2
Richardson Ocean Center	7	(NA)	(NA)	3.5
Hawaii (Kona Shoreline Area):				
Hapuna Beach	6	3.6	3.1	3.8
Kahaluu Beach	6	2.8	3.2	3.5
Kealakekua Bay (curio stand)	6	3.9	3.6	3.3
Kealakekua Bay (canoe landing)	6	4.7	3.6	3.1
Magic Sands Beach	6	2.3	3.8	3.7
Puako Beach Lots (middle)	6	4.5	14.5	4.7
Puako Beach Lots (south end)	6	14.1	20.4	6.4
Spencer Beach Park	6	7.6	3.1	3.3
Maui:				
Hukilau Hotel shoreline	-	3.7	4.0	(NA)
Oahu:				
Ala Moana Park (ewa end)	10	3.6	6.3	2.0
Ala Moana Park (center)	6	2.5	2.2	2.5
Ala Moana Park (diamond head)	7	3.8	3.4	4.8
Elks Club Beach	6	2.3	2.1	5.4
Ewa Beach	6	5.7	2.8	2.2
Ft. DeRussy Beach	6	4.6	3.6	4.4
Gray's Beach	10	6.2	4.7	9.5
Hanauma Bay	9	5.4	17.7	5.0
Kahana Park Beach	5	23.1	23.9	145.6
Kahanamoku Beach	7	3.2	3.1	10.3
Kahanamoku Lagoon (diamond head)	11	12.1	15.4	22.8
Kailua Bay outfall shoreline	8	3.2	2.0	2.2
Kailua Beach Park	11	3.9	3.8	15.5
Kokokahi Pier	7	40.6	19.5	39.5
Kuhio Beach	5	7.8	35.5	17.7
Public Bath Beach	11	4.0	4.0	3.1
Tavern Beach	6	4.6	4.2	9.2
Sand Island, Pt. No. 3	6	2.1	2.5	3.8

Continued on next page.

Table 149.-- WATER QUALITY AT SPECIFIED PUBLIC BEACHES: 1986 TO 1988 - Con.

Island and beach	Number of samples, 1988	Fecal coliform density 1/ (geometric mean, MPN/100 ml)		
		1986	1987	1988
Kauai:				
Anahola Bay Pavilion	1	(NA)	(NA)	2.0
Anini Park Pavilion	3	(NA)	(NA)	5.6
Brennecke Beach	4	2.0	2.2	2.8
Hanalei Bay Landing	2	76.9	7.0	21.0
Hanalei Bay Pavilion	1	(NA)	(NA)	13.0
Hanamaulu Beach (middle)	3	(NA)	(NA)	254.6
Kapaa Pavilion	3	(NA)	(NA)	3.3
Kealia Beach	1	(NA)	(NA)	2.0
Kekaha (Oomano Point)	3	(NA)	(NA)	2.0
Poipu Beach	3	2.0	4.1	8.9
Wailua Beach	3	(NA)	(NA)	12.6
Waimea Bay Beach (near river)	2	(NA)	(NA)	256.9

NA Not available.
MPN Most probable number.
1/ The geometric mean standard for fecal coliform density is 200 MPN per 100 ml.

Source: Hawaii State Department of Health, Population Investigation and Enforcement Branch, data supplied May 15,1989.

Table 150.-- LITTER ALONG OAHU HIGHWAYS: 1979 TO 1988

Measure	1979	1981	1985	1988
Visible litter items per mile	1,381	1,672	1,038	892
Visible beer/soft drink containers per mile	144	80	49	26
Indiscriminate dumps per 1,000 miles of driving	8.2	15.7	19.6	14.1
Abandoned vehicles per 1,000 miles of driving	4.9	23.6	57.4	6.8

Source: Daniel B. Syrek, Hawaii Litter: 1988 (Sacramento: The Institute for Applied Research, for the Hawaii State Department of Health, Litter Control Office, May 13, 1988).

Table 151.-- REFUSE AND SEWAGE STATISTICS FOR OAHU: 1980 TO 1988

[Fiscal years]

Year	Tons of refuse delivered 1/			Sewage treated 2/ (millions of gallons)
	Total	City and County refuse vehicles	Other vehicles	
1980	686,438	221,774	464,664	36,885
1981	708,164	258,600	449,634	35,945
1982	669,120	244,826	424,294	34,830
1983	645,889	244,812	401,077	37,395
1984	707,473	235,767	471,706	38,283
1985	655,790	216,685	439,105	37,817
1986	729,611	252,081	477,530	37,608
1987	724,448	254,699	469,749	38,199
1988	847,873	262,477	585,396	39,757

Year	Sewage pumped 2/ (millions of gallons)	Miles of sewers 2/	City and County pump stations	City and County treatment plants
1980	45,165	1,592	47	19
1981	43,744	1,623	48	19
1982	44,687	1,646	50	21
1983	48,442	1,670	52	20
1984	48,320	1,691	51	18
1985	49,361	1,711	51	17
1986	48,559	1,736	55	17
1987	49,542	1,752	57	17
1988	51,713	1,769	59	17

1/ Excludes small landfill controlled by armed forces.

2/ Data limited to system maintained by the City and County of Honolulu Public Works Department.

Source: City and County of Honolulu, Departmental and Agency Reports (annual), and City Refuse Division, records.

Table 152.-- AIR QUALITY IN DOWNTOWN HONOLULU: 1978 TO 1988

[Annual arithmetic means, in micrograms per cubic meter, for total suspended particulates and sulfur oxides. Sampling is conducted about 46 feet above ground on the roof of the State Health Department building, 1250 Punchbowl Street, Honolulu, Hawaii]

Year	Particulates	Sulfur oxides	Year	Particulates	Sulfur oxides
1978	29	18	1986	25	<5
1979	32	22	1987	26	<5
1980	37	18	1988	26	<5
1981	40	19			
1982	29	11	Standards: 1/		
1983	26	<5	Primary ...	75	80
1984	25	<5	Secondary .	60	...
1985	24	<5			

1/ Primary and secondary national ambient air quality standards have been promulgated by the Federal government. Primary standards are designed to prevent adverse effects on public health, while secondary standards are designed to prevent adverse effects on public welfare, including the effects on comfort, visibility, vegetation, animals, aesthetic values, and soiling and deterioration of materials.

Source: Hawaii State Department of Health, Pollution Investigation and Enforcement Branch, data supplied May 15, 1989.

Table 153.-- AIR QUALITY AT SPECIFIED LOCATIONS: 1988

[24-hour sampling, in micrograms per cubic meter]

Sampling station	Total suspended particulates			Sulfur dioxide		
	Annual range		Arith-metic average	Annual range		Arith-metic average
	Minimum	Maximum		Minimum	Maximum	
Oahu:						
Barbers Point 1/	10	48	24	<5	19	<5
Downtown Honolulu	12	45	26	<5	5	<5
Liliha	17	44	29	...	...	...
Pearl City 1/....	7	28	16	...	...	...
Waimanalo	16	82	29	...	...	...
Maui:						
Kihei 1/, 2/.....	17	48	27	<5	5	<5
Lahaina 1/, 3/...	9	34	19	...	...	...
Kauai:						
Lihue 1/	8	30	17	...	...	...

1/ Particulate data from PM_{10} samplers (measuring inhalable particulates of less than 10 micrograms).

2/ Eight months of data.

3/ Six months of data.

Source: Hawaii State Department of Health, Pollution Investigation and Enforcement Branch, data supplied May 15, 1989.

Table 154.-- ATMOSPHERIC CARBON DIOXIDE MEASUREMENTS AT MAUNA LOA: ANNUAL MEAN VALUES, 1958 TO 1988

[Parts per million]

Year	Annual average	Year	Annual average	Year	Annual average
1958 ...	1/ 315.17	1969 ...	323.93	1980 ...	338.72
1959 ...	315.83	1970 ...	325.27	1981 ...	340.12
1960 ...	316.75	1971 ...	326.17	1982 ...	341.21
1961 ...	317.49	1972 ...	327.26	1983 ...	342.87
1962 ...	318.30	1973 ...	329.45	1984 ...	344.48
1963 ...	318.83	1974 ...	1/ 329.72	1985 ...	345.85
1964 ...	2/ 319.04	1975 ...	3/ 331.14	1986 ...	347.21
1965 ...	319.87	1976 ...	332.04	1987 ...	348.98
1966 ...	321.21	1977 ...	333.79	1988 ...	351.34
1967 ...	322.02	1978 ...	335.35		
1968 ...	322.83	1979 ...	336.73		

1/ Based on data for 8 months.
2/ Based on data for 9 months.
3/ Based on data for 11 months.

Source: National Oceanic and Atmospheric Administration, Geophysical Monitoring for Climatic Change, records; provided by Saul Price, National Weather Service, Pacific Region, Honolulu.

Table 155.-- NOISE LEVELS DURING DAYLIGHT HOURS IN SPECIFIED NEIGHBORHOODS ON OAHU: 1981-1982

[Noise levels, in decibels, exceeded 10, 50, and 90 percent of the time]

Neighborhood	Manual sampling			Automatic sampling		
	10	50	90	10	50	90
Aina Haina	45.6	42.1	39.5	53.5	46.2	43.2
Aina Koa	48.1	43.1	40.1	52.9	45.8	42.5
Downtown	57	55	54	60	57	55
Hawaii Kai	46.5	41.6	38.9	53.5	46.9	42.9
Kahala	48.0	44.5	42.4	-	-	-
Kaimuki	51.8	44.6	41.7	57.2	47.6	43.3
Kalihi	53.5	49.6	47.4	-	-	-
Kapahulu	47.2	45.0	42.0	-	-	-
Kapalama-Liliha	46.4	45.1	42.5	-	-	-
Kuliouou	48.6	45.9	43.4	52.5	47.9	45.4
Liliha	46	45	43	-	-	-
Makiki	52.7	46.9	45.3	56.5	50.5	48.6
Manoa	45.4	42.6	40.7	51.5	46.0	43.4
Moiliili	53.7	50.2	46.9	60.0	53.4	48.9
Nuuanu	46.6	43.6	40.8	-	-	-
Palolo	49.3	44.6	41.6	65.0	52.4	45.4
Pawaa	59.8	57.1	55.2	60.8	57.1	54.7
Salt Lake	56	52	49	-	56	51
Waikiki	57.8	55.4	54.1	61.6	57.5	55.3
Waialae Iki ...	46.4	43.1	40.6	54.6	44.8	41.7
Aiea	58	54	52	59	56	54
Halawa	52	46	44	55	50	47
Hauula	53	48	45	56	51	47
Kailua	49.2	45.5	42.9	54.9	49.6	45.2
Kaneohe	43.8	40.9	38.9	49.7	43.5	40.9
Mililani	44	37	34	53	46	41
Nanakuli	54	50	47	58	52	48
Pearl City	51	47	45	55	50	48
Wahiawa	47.1	44.7	42.4	51.8	47.3	43.9
Waimanalo	53	50	48	55	51	49
Waipahu	54.1	50.5	47.4	58.8	53.6	50.4

Source: Hawaii State Department of Health, Environmental Protection and Health Services Division, Noise and Radiation Branch, records.

Table 156.-- TEMPERATURES AND PRECIPITATION FOR SELECTED PLACES

Island and station	Ground elevation (feet)	Average temperature (°F.)		Extreme temperature of record (°F.)		Average annual precipitation (inches)
		Coolest month	Warmest month	Lowest	Highest	
Hawaii:						
Hilo Airport	30	71.2	75.9	53	94	128
Hawaii Volcanoes Nat. Park Hdq.	3,970	57.6	63.2	37	85	101
Naalehu	675	70.2	75.2	55	90	47
Kailua	30	72.1	77.3	54	93	25
Puako 1/	5	73.1	79.8	52	98	10
Waimea (Kamuela)	2,670	61.3	66.8	34	90	31
Honokaa	1,070	67.6	75.5	(NA)	(NA)	86
Mauna Kea summit 2/	13,796	31.3	42.5	11	66	20
Maui:						
Hana	120	71.3	76.8	50	90	69
Haleakala summit	10,025	42.6	50.0	14	73	44
Kihei 3/	85	70.9	78.4	49	98	13
Kahului Airport	40	71.5	79.2	48	96	20
Lahaina	45	71.5	78.0	52	93	15
Molokai:						
Kaunakakai	10	(NA)	(NA)	(NA)	(NA)	14
Molokai Airport	450	70.2	77.6	48	90	27
Lanai:						
Lanai City	1,620	65.8	72.8	46	88	37
Oahu:						
Honolulu International Airport	10	72.6	81.0	53	94	23
Waikiki (Honolulu Zoo)	10	71.9	80.6	51	93	25
Manoa (Lyon Arboretum)	500	69.4	75.2	(NA)	(NA)	158
Kaneohe MCAS	10	72.9	79.1	58	90	40

Continued on next page.

Table 156.-- TEMPERATURES AND PRECIPITATION FOR SELECTED PLACES -- Con.

Island and station	Ground elevation (feet)	Average temperature (°F.)		Extreme temperature of record (°F.)		Average annual precipitation (inches)
		Coolest month	Warmest month	Lowest	Highest	
Oahu (con.):						
Kahuku	25	71.6	78.8	49	95	40
Wheeler AFB	845	68.2	75.5	52	89	40
Waianae	10	72.1	79.7	45	96	20
Kauai:						
Kilauea (town)	315	68.7	75.6	49	94	68
Lihue Airport	100	71.3	79.1	50	90	44
Poipu (Makahuena Pt.)	50	72.4	79.4	50	93	35
Kokee (Kanalohuluhulu)	3,600	54.9	65.5	31	83	70
Waialeale	5,075	(NA)	(NA)	(NA)	(NA)	444
Northwestern Hawaiian Islands:						
Midway	10	65.0	78.6	52	89	44

NA Not available.

1/ Temperature data are for Mahukona.

2/ Based on incomplete and non-continuous data for 1966-1972. Precipitation estimated.

3/ Temperature data refer to Puunene Airport.

Source: Hawaii State Department of Land and Natural Resources, Division of Water and Land Development, data supplied September 26, 1989.

Table 157.-- CLIMATIC NORMALS, MEANS, AND EXTREMES FOR HILO, KAHULUI, HONOLULU, AND LIHUE AIRPORTS

Subject	Hilo	Kahului	Honolulu	Lihue
Normal temperatures (°F.):				
Daily maximum	81.2	83.8	84.2	81.1
Daily minimum	65.9	67.2	69.7	69.3
Monthly: Coolest month	71.2	71.5	72.6	71.3
Warmest month	75.9	79.2	81.0	79.1
Annual	73.6	75.5	77.0	75.2
Extreme temperatures (°F.):				
Record highest	94	96	94	90
Record lowest	53	48	53	50
Normal degree days, base 65°F.:				
Heating	-	-	-	-
Cooling	3,134	3,851	4,389	3,758
Precipitation (inches):				
Normal	128.15	19.85	23.47	44.02
Maximum monthly	50.82	14.46	20.79	22.91
Minimum monthly	0.28	0.00	T	T
Relative humidity (percent):				
8 A.M.	80	74	72	78
2 P.M.	68	58	56	66
Wind speed (m.p.h.):				
Mean	7.2	12.8	11.5	12.1
Fastest observation, 1 minute 1/	35	44	46	65
Percent of possible sunshine	41	68	68	56
Mean number of days:				
Clear	36.0	132.5	88.1	54.0
Partly cloudy	129.8	143.3	180.5	181.5
Cloudy	199.5	89.4	96.6	129.8
Precipitation .01 inch or more	278.3	97.4	99.5	201.3

T Trace amount.

1/ Kahului figure refers to fastest mile.

Source: U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Climatic Data Center, Local Climatological Data, Annual Summary with Comparative Data, 1988 for Hilo, Kahului, Honolulu, and Lihue.

Table 158.-- MONTHLY AND ANNUAL CLIMATIC DATA FOR HONOLULU INTERNATIONAL AIRPORT

Month	Normal temperature (°F)			Extreme temperature (°F)		Precipitation (inches)			
	Daily maximum	Daily minimum	Monthly	Record highest	Record lowest	Normal total	Maximum monthly	Minimum monthly	Maximum in 24 hours
January ...	79.9	65.3	72.6	87	53	3.79	14.74	0.18	6.72
February ..	80.4	65.3	72.9	88	53	2.72	13.68	0.06	6.88
March	81.4	67.3	74.4	88	55	3.48	20.79	0.01	17.07
April	82.7	68.7	75.7	89	57	1.49	8.92	0.01	4.21
May	84.8	70.2	77.5	93	60	1.21	7.23	0.05	3.44
June	86.2	71.9	79.1	92	65	0.49	2.46	T	2.28
July	87.1	73.1	80.1	92	67	0.54	2.01	0.03	1.38
August	88.3	73.6	81.0	93	67	0.60	3.08	T	2.35
September .	88.2	72.9	80.6	94	66	0.62	2.74	0.05	1.40
October ...	86.7	72.2	79.5	94	64	1.88	11.15	0.11	7.57
November ..	83.9	69.2	76.6	93	58	3.22	14.72	0.03	9.15
December ..	81.4	66.5	74.0	89	54	3.43	17.29	0.06	8.25
Annual	84.2	69.7	77.0	94	53	23.47	20.79	T	17.07

Continued on next page.

Table 158.-- MONTHLY AND ANNUAL CLIMATIC DATA FOR HONOLULU INTERNATIONAL AIRPORT -- Con.

Month	Relative humidity (percent)		Wind (miles/hour)		Percent of possible sunshine	Mean sky cover, sunrise to sunset 2/	Mean number of days		
							Sunrise to sunset		Precip. .01 inch or more
	8 A.M.	2 P.M.	Mean speed	Fastest obs. 1/			Clear	Cloudy	
Jan. ...	81	62	9.6	32	63	5.4	9.4	8.6	9.9
Feb. ...	79	59	10.3	30	65	5.5	7.9	7.8	9.2
Mar. ...	73	57	11.4	30	69	5.8	7.3	9.4	8.9
Apr. ...	70	56	12.0	31	67	6.2	5.4	10.3	9.1
May	67	54	11.9	30	69	6.0	6.3	9.5	7.4
June ...	66	52	12.7	26	71	5.6	5.9	6.7	5.8
July ...	68	51	13.3	28	74	5.3	7.5	5.3	7.4
Aug	68	53	13.0	28	75	5.3	7.9	6.2	6.4
Sept. ..	68	52	11.4	26	75	5.3	7.7	6.1	7.1
Oct. ...	69	55	10.6	25	68	5.7	7.4	8.4	8.7
Nov. ...	75	59	10.8	46	61	5.7	7.1	9.2	9.3
Dec. ...	79	61	10.5	29	59	5.5	8.4	9.2	10.3
Ann. ...	72	56	11.5	46	68	5.6	88.1	96.6	99.5

T Trace amount.

1/ Fastest observation, 1 minute, during 8-year period of record.

2/ Sky cover is expressed in a range of 0 for no clouds or obscuring phenomena to 10 for complete sky cover.

Source: U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Climatic Data Center, Local Climatological Data, Annual Summary With Comparative Data, Honolulu, 1988.

Table 159.-- CLIMATIC DATA FOR HONOLULU INTERNATIONAL AIRPORT: ANNUALLY, 1978 TO 1988

Year	Average temperature (°F)			Extreme temp. (°F)		Precipitation (inches)
	Annual	Coolest month	Warmest month	Lowest	Highest	
1978 ...	76.8	72.4	80.5	57	91	25.05
1979 ...	77.0	69.9	81.1	57	93	16.93
1980 ...	77.5	71.9	81.6	56	91	26.90
1981 ...	77.1	73.2	80.7	53	90	13.41
1982 ...	76.9	71.7	81.4	56	92	34.92
1983 ...	77.2	71.3	82.4	53	92	5.03
1984 ...	78.1	74.1	81.7	57	94	17.08
1985 ...	76.9	71.4	81.9	54	93	17.38
1986 ...	78.3	72.6	82.9	56	94	13.93
1987 ...	77.9	71.2	82.9	55	94	23.53
1988 ...	78.5	73.1	82.1	57	94	16.47

Year	Relative humidity (percent)		Wind speed (miles/hour)		Percent of possible sunshine	Days with precipitation .01 inch or more
	8 A.M.	2 P.M.	Annual average	Peak gust 1/		
1978 ...	74	58	11.9	34	69	90
1979 ...	74	57	11.4	34	68	89
1980 ...	75	59	11.9	35	69	115
1981 ...	76	59	10.7	30	72	97
1982 ...	73	59	10.4	46	56	124
1983 ...	75	52	9.8	23	64	78
1984 ...	72	53	10.2	40	71	81
1985 ...	72	55	10.6	46	69	87
1986 ...	74	55	10.1	41	77	88
1987 ...	70	54	9.9	41	73	99
1988 ...	71	53	9.8	39	75	88

1/ Before 1984, figures refer to fastest mile.

Source: U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Climatic Data Center, Local Climatological Data, Annual Summary With Comparative Data, Honolulu, Hawaii (annual).

Table 160.-- CLIMATIC DATA FOR THE PERIOD OF RECORD

Subject	Date	Place	Magnitude
Long-term averages:			
Lowest monthly average minimum temp. (°F.) ..	February	Mauna Kea summit ..	23.5
Lowest monthly average daily temp. (°F.)	February	Mauna Kea summit ..	31.3
Highest monthly average maximum temp. (°F.) .	September	Kawaihae 1/	91.9
Highest monthly average daily temp. (°F.) ...	September	Kawaihae 1/	80.8
Lowest average annual rainfall (inches)	....	Kawaihae	8.7
Highest average annual rainfall (inches)	....	Waialeale	444
Single events:			
Lowest temperature of record (°F.)	Jan. 20, 1970 ...	Mauna Kea summit 2/	1.4
Highest temperature of record (°F.)	April 27, 1931 ..	Pahala	100
Lowest annual rainfall of record (inches) ...	1953	Kawaihae	0.2
Highest annual rainfall of record (inches) ..	1982	Waialeale	666
Highest wind speed of record (m.p.h.)	Nov. 23, 1982 ...	Makahuena Pt. 3/ ..	117

1/ Puukohola Heiau National Historical Site, Kawaihae, Hawaii.

2/ Recorded by Dr. Alfred Woodcock 60 meters inside the Mauna Kea summit cone, at 6:50 a.m. The rim at that time had a temperature of 39° F.

3/ Makahuena Point Coast Guard Station, Poipu, Kauai.

Source: Hawaii State Department of Land and Natural Resources, Division of Water and Land Development, data supplied September 26, 1989.

Table 161.-- RAINFALL AT SPECIFIED LOCATIONS: ANNUALLY, 1978 TO 1988

[In inches]

Year	Hawaii			Maui		
	Hilo Airport	Wai-mea 1/	Kona Village	Kahului Airport	Kihei	Lahaina
1978 ...	119.09	14.83	8.68	19.15	9.91	11.97
1979 ...	158.77	29.23	16.00	26.82	21.32	20.85
1980 ...	127.74	28.31	16.90	27.87	20.27	22.69
1981 ...	89.91	13.30	7.02	12.85	9.72	8.13
1982 ...	170.36	56.29	26.88	34.04	29.11	34.36
1983 ...	68.09	12.95	8.51	13.05	8.60	9.70
1984 ...	100.08	8.87	8.15	8.56	5.64	6.30
1985 ...	112.96	16.58	8.60	20.00	13.86	13.48
1986 ...	171.03	34.67	12.41	18.39	7.25	7.38
1987 ...	142.41	19.43	10.24	24.31	14.03	19.72
1988 ...	140.19	12.52	11.70	26.79	17.03	14.91

Year	Oahu			Kauai		
	Waikiki	Univ. of Hawaii	Nuuanu Res. 4	Koloa	Lihue Airport	Prince-ville
1978 ...	27.18	41.56	124.42	70.64	39.11	130.82
1979 ...	26.22	46.74	111.56	55.98	37.09	93.19
1980 ...	28.50	48.52	140.70	78.78	54.64	130.55
1981 ...	19.09	31.71	112.46	66.26	38.14	130.72
1982 ...	39.96	57.98	168.16	96.75	74.40	241.22
1983 ...	9.80	19.77	74.32	50.69	16.40	46.93
1984 ...	19.35	33.13	71.32	48.82	30.12	71.58
1985 ...	25.61	42.19	101.20	48.70	28.91	55.22
1986 ...	22.39	32.39	120.60	64.64	27.99	90.28
1987 ...	27.56	46.52	134.29	72.53	42.95	94.61
1988 ...	24.50	(NA)	124.42	63.23	43.06	77.10

NA Not available.

1/ Lalamilo Field Office.

Source: U.S. Department of Commerce, National Climatic Data Center, Climatological Data, Annual Summary, Hawaii and Pacific (annual); and Hawaii State Department of Land and Natural Resources, Division of Water and Land Development, records.

Table 162.-- MAJOR HURRICANES: 1950 TO 1989

[Complete to September 26, 1989]

Hurricane name	Date 1/	Islands most affected	Maximum winds ashore (m.p.h.)		Deaths	Property damage (mil. dol.)
			Sustained	Gusts		
Hiki	Aug. 15-17, 1950	Kauai	68	(NA)	1	0.2
Della	Sept. 4, 1957	French Frig. Shoals	82	109	-	Minor
Nina	Dec. 1-2, 1957	Kauai	92	(NA)	4	1.1
Dot	Aug. 7, 1959	Kauai	81	103	-	5.5+
Fico	July 18-20, 1978	Hawaii	(NA)	58+	-	0.2
Iwa	Nov. 24, 1982	Kauai, Oahu	65	117	1	234.0
Estelle ...	July 22, 1986	Maui, Hawaii	(NA)	55	-	2.0

NA Not available.

1/ Period affecting the Hawaiian Islands.

Source: Samuel L. Shaw, A History of Tropical Cyclones in the Central North Pacific and the Hawaiian Islands, 1832-1979 (U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Weather Service, September 1981); Hawaii State Department of Defense, Civil Defense Division, Catalogue of Natural and Man-Caused Incidents and Disasters in the Hawaiian Islands (December 1978); The Governor's Ad Hoc Committee on the Economic Impact of Hurricane Iwa, Hurricane Iwa's Economic Impact on Hawaii (January 1983); "The History of Hurricanes in Hawaii," Honolulu Star-Bulletin, July 18, 1983, p. A-5; "20-Foot Waves Hit Big Isle As Storm Brushes Coastline," Honolulu Advertiser, July 23, 1986, pp. A-1, A-2; "Hawaii Hurricanes," Honolulu Star-Bulletin, August 4, 1988, p. A-8; Hawaii State Department of Land and Natural Resources, Division of Water and Land Development, records.

Table 163.-- TRADE WINDS, HIGH SURF, AND TEMPERATURES IN HAWAIIAN WATERS, BY MONTHS

Month	Trade wind frequency 1/ (percent)	Expected days of strong trade winds 2/	Highest surf 3/ (average number of days)		Water temperature 4/ (°F.)	
			Flat or 1 foot	6 feet or more	Mean maximum	Mean minimum
Jan. ...	42	9	1	19	74.7	71.1
Feb. ...	55	7	1	16	75.6	70.3
March ..	61	10	1	12	76.5	71.8
April ..	74	10	3	7	77.7	73.0
May	86	7	8	3	79.5	74.7
June ...	91	7	15	-	81.1	77.7
July ...	95	10	16	-	81.1	78.3
Aug. ...	94	7	15	-	81.9	79.2
Sept. ..	83	4	10	2	81.9	78.4
Oct. ...	71	4	1	12	81.1	77.2
Nov. ...	64	8	-	19	79.3	74.5
Dec. ...	57	9	-	20	75.9	71.4
Ann. ...	65	92	71	110	78.6	74.8

1/ Mean monthly frequency of trade winds in Hawaiian waters.

2/ Expected number of hazardous days in Hawaiian waters due to strong trade winds.

3/ Observations at Sunset Beach, Oahu. Annual averages were: flat or 1 foot, 71 days; 2-5 feet, 184 days; 6-10 feet, 71 days; 11-15 feet, 26 days; 16 feet or higher, 13 days.

4/ Observations at Kaneohe, Oahu. The mean ranged from 73.0 in January and February to 80.2 in August. Absolute maximums and minimums were respectively 84 (in July, August, and October) and 68 (December and February).

Source: Paul Haraguchi, Weather in Hawaiian Waters (Honolulu: Pacific Weather, Inc., 1979), pages 14, 22, 56, and 74.

Table 164.-- AVERAGE WATER TEMPERATURES AT WAIKIKI BEACH

[In Fahrenheit degrees]

Month	Morning	Afternoon
March	75	77
August	77	82

Source: U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Climatic Data Center, *Local Climatological Data, Annual Summary With Comparative Data, Honolulu, Hawaii, 1983*.

Table 165.-- SUNRISE, SUNSET, AND HOURS OF DAYLIGHT AT SELECTED LOCATIONS, AT BEGINNING OF EACH SEASON

[Hawaiian Standard Time]

Subject	Hilo	Kahului	Honolulu	Lihue	Barking Sands
Sunrise (A.M.):					
March 21	6:24	6:29	6:35	6:41	6:42
June 21	5:42	5:45	5:50	5:55	5:56
Sept. 23	6:09	6:15	6:21	6:26	6:28
Dec. 22	6:51	6:58	7:05	7:12	7:14
Sunset (P.M.):					
March 21	6:32	6:37	6:43	6:49	6:51
June 21	7:02	7:10	7:16	7:23	7:25
Sept. 23	6:16	6:21	6:27	6:33	6:35
Dec. 22	5:47	5:50	5:55	6:00	6:01
Hours of daylight:					
March 21	12:08	12:08	12:08	12:08	12:09
June 21	13:20	13:25	13:26	13:28	13:29
Sept. 23	12:07	12:06	12:06	12:07	12:07
Dec. 22	10:56	10:52	10:50	10:48	10:47

Source: Nautical Almanac Office, U.S. Naval Observatory, Tables of Sunrise and Sunset, No. 1083 and 1084, and records. Data provided by Saul Price, Staff Meteorologist, National Weather Service, Pacific Region.

Table 166.-- HAWAII AUDUBON SOCIETY BIRD COUNTS OF THE HONOLULU AREA: 1985 TO 1988

[Counts are made in late December, in a circle, 15 miles in diameter, centered near Nuuanu Pali]

Species 1/	1985	1986	1987	1988
All species:				
Species	51	50	50	48
Individual birds	28,803	28,690	29,009	29,909
Endemic species:				
'Apapane	66	85	79	173
Hawaiian Coot	23	23	10	38
Hawaiian Stilt	118	103	149	135
Oahu 'Amakihi	125	110	155	108
Indigenous species:				
Great Frigatebird	194	6	15	24
Red-footed Booby	531	402	785	748
Introduced species:				
Cattle Egret	656	988	1,009	789
Common Myna	3,586	5,420	5,752	5,417
House Sparrow	2,793	2,633	2,156	1,426
Japanese White-eye	1,628	1,078	1,455	1,024
Red-vented Bulbul	1,972	2,023	2,361	2,256
Spotted Dove	2,774	2,533	2,398	2,284
Zebra (Barred) Dove	7,299	7,860	5,830	8,739
Migratory species:				
Lesser Golden-Plover	1,846	1,482	1,673	2,046
Ruddy Turnstone	268	317	272	373

1/ Separate data are shown for endemic birds averaging more than 25 individuals in 1975-1979, indigenous birds more than 200, introduced birds more than 500, and migratory species and stragglers more than 100. Endemic birds are those peculiar to a particular region, in this case Hawaii, and therefore found nowhere else in the world; indigenous birds are those native to a given region, in this case Hawaii, but with a total range of distribution encompassing a much wider area. The classification is that in Andrew J. Berger, Hawaiian Birdlife (1972).

Source: Hawaii Audubon Society, 'Elepaio (monthly).

Table 167.-- HAWAII AUDUBON SOCIETY BIRD COUNT OF THE HONOLULU AREA, BY TYPE OF SPECIES: DECEMBER 1988

Type of species 1/	Number of species	Number of individuals
All species	48	29,909
Endemic	6	472
Indigenous	8	839
Introduced	27	26,078
Migratory	7	2,520

1/ For definitions, see preceding table, footnote 1.

Source: Hawaii Audubon Society, "Honolulu Christmas Count -- 1988," 'Elepaio, February 1989, pp. 7-9.

Table 168.-- TREES ALONG STREETS OR IN PARKS UNDER THE JURISDICTION OF THE CITY AND COUNTY OF HONOLULU: 1984 TO 1988

[As of June 30]

Location	1984	1985	1986	1987	1988
Along City and County streets and highways 1/	117,133	118,437	120,029	121,100	122,253
In City and County parks	96,873	96,727	96,896	97,101	97,434

1/ Excludes Federal, State, and private thoroughfares.

Source: City and County of Honolulu, Department of Parks and Recreation, records.

Table 169.-- THREATENED, ENDANGERED, AND EXTINCT SPECIES OF NATIVE FAUNA AND FLORA: NOVEMBER 1986

Type of fauna or flora	Native species	Candidate 1/	Threatened 1/	Endangered 1/	Extinct 2/
Land mammals	1	-	-	1	-
Marine mammals	18	-	-	8	-
Reptiles and amphibians ..	5	-	3	2	-
Birds	87	-	1	29	23
Freshwater fish	6	1	-	-	-
Invertebrates	(3/)	150	-	41	4/ 88
Plants	2,734	787	-	19	4/ 100

1/ Categories of the Federal List of Endangered and Threatened Species, as published in the Federal Register. Candidate species are those being officially considered for listing as threatened or endangered.

2/ Since 1778.

3/ Not known, but nearly 10,000 native species of insects and more than 1,000 native species of land snails have been estimated.

4/ Incomplete and probably much higher.

Source: U.S. Department of the Interior, Fish and Wildlife Service records; P. Q. Tomich, Mammals in Hawaii (1969); Robert L. Pyle, "Checklist of Birds of Hawaii," The 'Elepaio, November 1983; correspondence from W. C. Gagne, Entomology Department, Bishop Museum, July 3, 1985; H. St. John, List and Summary of the Flowering Plants in the Hawaiian Islands (1973), p. 519; University of Hawaii Department of Geography, Atlas of Hawaii (1983), pp. 80 and 83.

LAND USE AND OWNERSHIP

General statistics on the use, ownership, and tenure of land appear in this section. Information on specific use or ownership categories is given elsewhere: parks in Section 7, military land in Section 10, agriculture in Section 19, forests in Section 20, and cane land and industrial parks in Section 22.

Out of the 4,112,000 acres in the State in 1982, 333,000 were in cropland and 974,000 in pastureland. Other major categories included forestland, with 1,473,000 acres, urban and built-up, with 126,000, and miscellaneous nonfarm, with 852,000. On Oahu, land in residential use increased from 22,600 acres in 1969 to 29,100 in 1988; during the same 19-year span, agricultural land declined from 88,900 to 75,700 acres. For the State as a whole, the Land Use Commission has zoned 167,000 acres as urban, 1,967,000 as conservation, 1,969,000 as agricultural, and 10,000 as rural.

Recent data on land ownership indicate that the Federal government owns 8.4 percent of all land, the State and counties own 29.8 percent, and private owners (chiefly large estates) have 61.8 percent. Total Federal holdings reported by the General Services Administration in 1987 came to 674,000 acres, exclusive of leased land (9,400 acres); most of the Federal land was in wildlife, park and military use. The State Department of Hawaiian Home Lands holds about 187,000 acres, divided among 5,800 lessees. Total land parcels in the State as of 1989 numbered 418,000.

Considerable caution is necessary in comparing statistics from different sources on land use, ownership, or tenure. Variations in definitions and survey dates seriously affect comparability in many instances, even where terminology is relatively unambiguous and misinterpretation seems unlikely. An example of such difficulties is the wide range in estimates of Federal land, with totals ranging from 338,000 acres to 674,000.

Tabulations by the U.S. Department of Agriculture and General Services Administration, Hawaii State Department of Hawaiian Home Lands, Department of Land and Natural Resources, Department of Business and Economic Development, and Land Use Commission, Honolulu Department of Finance, and Honolulu Department of General Planning provided the data for this section. Historical Statistics of Hawaii, Section 12, contains limited information for earlier years. Statistics for the nation as a whole are available in Sections 6, 7, 10, 23, and 24 of the Statistical Abstract of the United States: 1989.

Table 170.-- LAND OWNERSHIP, COVER, OR USE AND TYPES OF WATER AREAS, BY COUNTIES: 1982

[1,000 acres]

Category	State total 1/	City and County of Honolulu 1/	Other counties		
			Hawaii	Kauai	Maui 2/
Total area	4,141.3	397.2	2,582.5	403.0	758.6
Federal land	341.5	51.1	231.9	2.6	55.9
Nonfederal land	3,770.6	330.6	2,349.9	394.0	696.1
Rural land	3,609.6	268.0	2,288.7	379.0	673.9
Cropland	333.2	74.6	85.2	82.3	91.1
Pastureland	974.0	78.1	621.7	48.8	225.4
Rangeland	0.0	0.0	0.0	0.0	0.0
Forest land	1,473.5	104.3	891.7	230.7	246.8
Minor land cover/uses 3/ ..	828.9	11.0	690.1	17.2	110.6
Urban and built-up land	125.9	56.9	42.2	9.8	17.0
Rural transportation	22.8	4.7	10.3	3.1	4.7
Small water areas	12.3	1.0	8.7	2.1	0.5
Water bodies 4/	2.2	0.5	1.3	0.3	0.1
Perennial streams 5/	10.1	0.5	7.4	1.8	0.4
Census water 6/	29.2	15.5	0.7	6.4	6.6

1/ Excludes the Northwestern Hawaiian Islands, legally part of the City and County of Honolulu.

2/ Includes Kalawao County.

3/ Includes farmsteads and ranch headquarters (State total, 3.5), other land in farms (5.6), mines, quarries, and pits (0.0), small built-up areas (2.2), and other rural lands (817.6, of which 687.7 were in Hawaii County).

4/ Includes a State total of 0.8 in bodies less than 2 acres and 1.4 in bodies of 2 to 40 acres.

5/ Includes a State total of 4.1 in streams less than 66 feet wide and 6.0 in streams 66 to 660 feet wide.

6/ Larger water bodies not included in land area totals, as measured by the Bureau of the Census (Pearl Harbor, Kaneohe Bay, etc.).

Source: U.S. Department of Agriculture, Soil Conservation Service, 1982 National Resources Inventory, tables 1c, 2c, 7c, and 8c for Hawaii (unpublished).

Table 171.-- LAND USE AND STRUCTURAL CHARACTERISTICS OF OAHU: 1987 AND 1988

Subject	Dec. 1987: Oahu total	December 1988		
		Oahu total	Honolulu district	Rest of Oahu
LAND USE (IN ACRES)				
All existing uses	375,476	375,426	54,151	321,275
Single family	26,182	26,439	8,441	17,998
Multi-family	2,633	2,693	1,114	1,579
Industrial	10,326	10,665	3,889	6,777
Commercial	4,383	4,380	1,779	2,601
Hotel	301	301	129	172
Agriculture	76,842	75,737	302	75,436
Usable vacant	36,684	36,532	2,771	33,761
Other	218,125	218,677	35,726	182,951
STRUCTURES BY YEAR BUILT 1/				
All structures	149,086	150,220	63,777	86,443
Before 1930	7,951	7,784	5,940	1,844
1930 to 1939	9,482	9,394	5,962	3,432
1940 to 1949	15,834	15,650	8,957	6,693
1950 to 1959	30,543	30,417	14,665	15,752
1960 to 1969	41,513	41,446	15,685	25,761
1970 to 1979	28,253	28,235	8,194	20,041
1980 and later	15,510	17,294	4,374	12,920
DWELLING UNITS BY TYPE 1/				
All dwelling units	258,823	261,565	146,865	114,700
Single family and duplex	137,892	139,017	56,908	82,109
Low density multi-family	13,482	13,528	1,015	12,513
High density multi-family	107,449	109,020	88,942	20,078

1/ Data exclude structures on military bases.

Source: City and County of Honolulu, Department of General Planning, records.

Table 172.-- LAND PARCELS, BY COUNTIES: 1985 TO 1989

[As of January 1]

Year	State total	City and County of Honolulu	County of Maui	County of Hawaii	County of Kauai
1985	398,148	208,466	47,076	120,177	22,429
1986	404,018	212,868	47,321	121,349	22,480
1987	409,069	215,207	48,568	122,180	23,114
1988	412,862	217,971	48,863	122,788	23,240
1989	417,875	220,763	49,765	123,801	23,546

Source: City and County of Honolulu, Department of Finance, Real Property Assessment Division, Real Property Tax Valuations, Tax Rates, & Exemptions, State of Hawaii (annual).

Table 173.-- CEMETERIES, CHURCHES, HOSPITALS, AND SCHOOLS, BY COUNTIES: 1989

[Privately-owned parcels exempt from real property taxes]

Category	State total	Honolulu	Maui	Hawaii	Kauai
Cemeteries	110	48	7	48	7
Churches	1,398	787	209	270	132
Hospitals	74	59	12	-	3
Schools	140	97	7	33	3

Source: City and County of Honolulu, Department of Finance, Real Property Assessment Division, Real Property Tax Valuations, Tax Rates & Exemptions, 1989-1990 Tax Year, State of Hawaii (July 1989), p. 6.

Table 174.-- ACREAGE OF LAND USE CLASSES, BY COUNTIES: JUNE 1989

[Based on land use classifications used for real property assessment purposes. Data exclude public streets and highways and other areas not in parcels of record. For unknown reasons, totals in this table differ significantly from the corresponding 1988 figures in Data Book 1988, table 184]

Land use class 1/	State total	City and County of Honolulu	County of Maui	County of Hawaii	County of Kauai
All uses 2/	4,029,908	372,027	748,668	2,513,392	395,820
Improved residential ...	63,687	40,470	6,608	12,311	4,298
Apartment	5,908	2,279	1,082	1,888	659
Commercial	9,967	7,266	885	1,263	554
Industrial	20,231	10,662	1,782	6,474	1,313
Agricultural	1,924,606	129,974	403,897	1,187,852	202,883
Conservation	1,955,082	160,822	327,983	1,285,319	181,018
Hotel and resort	2,827	255	1,250	557	764
Unimproved residential .	47,600	20,299	5,240	17,729	4,332

1/ Based on "Pitt codes" as established by the "Pittsburgh Law" of differential tax rates for real property assessment and taxation as specified in Sec. 246-10, Hawaii Revised Statutes, 1985 Replacement.

2/ Because of excluded categories, these totals differ from figures for total area shown elsewhere in the Data Book.

Source: City and County of Honolulu, Department of Finance, Real Property Assessment Division, records.

Table 175.-- ESTIMATED ACREAGE OF LAND USE DISTRICTS: 1964 TO 1989

[Total acreage, including inland water, as classified by the Hawaii State Land Use Commission under the provisions of Chapter 205, Hawaii Revised Statutes, as amended. All data are approximate]

Year and month	Total area 1/	Classification by State Land Use Commission 2/			
		Urban	Conservation	Agricultural	Rural
UNADJUSTED 3/					
1964: August ...	4,111,500	117,800	1,862,600	2,124,400	6,700
1969: August ...	4,111,500	140,163	2,009,087	1,955,875	6,375
1974: March	4,111,500	147,472	1,986,429	1,968,727	8,872
1979: January ..	4,111,500	151,929	1,976,106	1,974,230	9,235
1980: January ..	4,111,500	152,199	1,975,865	1,974,196	9,240
1981: January ..	4,111,500	154,319	1,975,836	1,972,104	9,241
1982: January ..	4,111,500	154,726	1,975,672	1,971,886	9,216
1983: January ..	4,112,388	156,413	1,975,473	1,971,279	9,223
1984: January ..	4,112,388	156,568	1,975,473	1,970,146	10,201
1985: January ..	4,112,388	158,620	1,969,351	1,974,236	10,181
1986: January ..	4,112,388	163,211	1,968,804	1,970,189	10,184
1987: January ..	4,112,388	165,165	1,967,638	1,969,401	10,184
1988: January ..	4,112,388	166,507	1,967,168	1,968,524	10,189
ADJUSTED 3/					
1988: January ..	4,112,388	165,607	1,967,247	1,969,345	10,189
1989: January ..	4,112,388	171,214	1,967,194	1,963,784	10,196

1/ These totals differ somewhat from the official figures based on measurements by the Geography Division of the U.S. Bureau of the Census, cited in Section 5. The increase in the 1983 total area reflects additions to the Urban District on Oahu at Honolulu International Airport (Reef runway and South Ramp refill) created from former submerged lands.

2/ For definitions, see Hawaii Revised Statutes, 1985 Replacement, Section 205-2.

3/ For changes in classification resulting from court decisions on past Commission actions.

Source: Hawaii State Department of Business and Economic Development, Land Use Commission, records.

Table 176.-- ESTIMATED ACREAGE OF LAND USE DISTRICTS, BY ISLANDS: JANUARY 1989

[Total acreage, including inland water, as classified by the Hawaii State Land Use Commission under the provisions of Chapter 205, Hawaii Revised Statutes, as amended. All data are approximate]

Year and month	Total area 1/	Classification by State Land Use Commission 2/			
		Urban	Conservation	Agricultural	Rural
State total	4,112,388	171,214	1,967,194	1,963,784	10,196
Hawaii	2,573,400	44,225	1,300,883	1,227,666	626
Maui	465,800	17,174	193,626	251,255	3,745
Kahoolawe	28,800	-	28,800	-	-
Lanai	90,500	2,338	38,203	47,239	2,720
Molokai	165,800	2,503	49,768	111,657	1,872
Oahu	386,188	92,583	154,882	138,723	-
Kauai	353,900	12,391	198,732	141,544	1,233
Niihau	45,700	-	-	45,700	-
Kaula and Lehua	400	-	400	-	-
Other islands 3/	1,900	-	1,900	-	-

1/ These totals differ somewhat from the official figures based on measurements by the Geography Division of the U.S. Bureau of the Census, cited in Section 5.

2/ For definitions, see Hawaii Revised Statutes, 1985 Replacement, Section 205-2.

3/ The Northwestern Hawaiian Islands, from Nihoa to Kure Atoll, excluding Midway.

Source: Hawaii State Department of Business and Economic Development, Land Use Commission, records.

Table 177.-- LAND OWNERSHIP OR TENURE, BY ISLANDS: FALL 1988

[In acres. Government land leased to private users is included with privately owned land]

Island	All land 1/	Land owned by government 2/			Privately owned land
		Federal	State	Counties	
State total 3/ ..	4,035,601	338,035	1,188,242	14,898	2,494,426
Percent	100.0	8.4	29.4	0.4	61.8
Hawaii	2,497,055	229,848	817,391	1,278	1,448,537
Maui	448,170	26,875	102,345	1,568	317,381
Kahoolawe	28,800	28,800	-	-	-
Molokini	19	19	-	-	-
Lanai	88,985	5	124	14	88,843
Molokai	170,910	211	47,601	265	122,831
Oahu	403,154	48,861	69,541	11,162	273,590
Kauai	351,292	3,158	150,984	610	196,540
Niihau	46,705	-	-	-	46,705
Lehua and Kaula	512	256	256	-	-

1/ Because of the omission of public thoroughfares and for other reasons, totals by island may differ considerably from official area estimates in other tables in this volume.

2/ State land ceded by presidential proclamation or governor's executive order to the federal government appears in most cases to have been classified for this table as federal land, even though title to it technically remains with the state. Land ceded by the state to the counties, in contrast, has probably been classified as state land. For both types of ceded land, treatment may have varied from parcel to parcel.

3/ Data exclude the Northwestern Hawaiian Islands (1,722 acres).

Source: City and County of Honolulu, Department of Finance, Real Property Assessment Division, records. Tabulation by State Department of Business and Economic Development.

Table 178.-- LAND IN HAWAII OWNED BY LARGE AND SMALL LANDOWNERS: 1986, 1987, AND 1988

Ownership	1986	1987	1988
Land area of State (acres) 1/	3,934,165	3,930,143	4,035,601
Owned by government 1/	1,497,713	1,414,750	1,541,175
Owned privately 1/	2,436,452	2,515,393	2,494,426
Six large owners 2/	938,362	935,560	912,853
Bernice P. Bishop Estate 3/	340,771	340,454	339,197
Richard S. Smart (Parker Ranch) 4/	139,301	139,301	139,301
Castle and Cooke, Inc. 5/	149,400	148,580	129,220
C. Brewer and Company, Ltd. 5/	92,591	91,501	90,689
Samuel M. Damon Estate 5/	121,599	121,599	121,598
Alexander and Baldwin, Inc. 5/	94,700	94,125	92,848
All others	1,498,090	1,579,833	1,581,573
Percent of total land area	100.0	100.0	100.0
Owned by government	38.1	36.0	38.2
Owned privately	61.9	64.0	61.8
Six large owners	23.9	23.8	22.6
All others	38.1	40.2	39.2
Percent of privately owned land	100.0	100.0	100.0
Six large owners	38.5	37.2	36.6
All others	61.5	62.8	63.4

1/ As of Summer 1986, Fall 1987, and Fall 1988. Because of the omission of public thoroughfares and for other reasons, the State total may vary from year to year and also may differ from official area estimates in other tables of this volume.

2/ Some of these figures are not exact accountings but are the landowners' best estimates.

3/ As of June 30.

4/ As of December 31. The total size of the Parker Ranch, including leased land, was 225,000 acres during this period.

5/ As of December 31.

Source: State total, government total, and private total from The State of Hawaii Data Book 1988, table 187; six large owners from DBED surveys of those owners; all other owners calculated as a residual.

Table 179.-- REAL PROPERTY OWNED BY OR LEASED TO THE FEDERAL GOVERNMENT: 1985 TO 1987

Subject	Sept. 30, 1985	Sept. 30, 1986	Sept. 30, 1987
OWNED			
Number of installations	312	311	317
Land area, total (acres)	711,699.7	687,041.5	673,845.8
Urban	91,112.4	61,673.1	53,486.3
Rural	620,587.3	625,368.4	620,359.5
Number of buildings	15,665	15,651	10,705
Cost, total ($1,000) 1/	2,208,937	2,240,010	2,217,625
Land	221,002	170,266	163,426
Buildings	1,235,490	1,282,653	1,250,462
Structures and facilities	752,445	787,091	803,737
Predominant usage (acres):			
Agriculture and grazing	-	-	-
Forest and wildlife	255,650.0	267,189.5	267,189.5
Parks and historic sites	245,110.1	245,110.1	245,110.1
Power development and distribution	-	-	-
Military, excluding airfields	113,103.0	112,671.6	108,727.9
Airfields	10,689.6	10,420.4	6,412.2
Harbor and port facilities	23.6	23.6	23.6
Reclamation and irrigation	-	-	-
Office building locations	52.7	54.9	56.8
Flood control and navigation	1,424.2	1,424.2	1,424.2
Vacant	3.0	3.0	3.0
Institutional	358.0	358.0	358.0
Housing	87.4	87.4	87.4
Storage	926.1	926.1	926.1
Industrial	9,881.4	9,173.0	3,576.6
Research and development	8.0	8.0	360.2
Other land	74,382.6	39,591.7	39,590.2
LEASED			
Number of leases	289	303	248
Land area, total (acres)	9,624.5	9,420.5	9,416.5
Urban	396.9	313.2	309.2
Rural	9,227.6	9,107.3	9,107.3
Number of building locations	186	187	172
Floor area of buildings (sq. ft.)	425,863	426,642	408,382
Annual rental ($1,000)	2,795	3,079	3,383

Footnote and source on next page.

Table 179.-- REAL PROPERTY OWNED BY OR LEASED TO THE FEDERAL GOVERNMENT: 1985 TO 1987 -- Con.

1/ At time of acquisition. Includes estimated equivalent cost of properties acquired through donation, exchange, devise, forfeiture, or judicial process.

Source: U.S. General Services Administration, Summary Report of Real Property Owned by the United States Throughout the World (annual) and Summary Report of Real Property Leased by the United States Throughout the World (annual).

Table 180.-- DEPARTMENT OF HAWAIIAN HOME LANDS ACREAGE, LESSEES, AND APPLICANTS, BY ISLANDS: JUNE 30, 1988

[The Department of Hawaiian Home Lands administers land set aside for the benefit of qualified native Hawaiians, who receive homestead leases and financial assistance from the Department]

Island	Acreage		Homestead leases		Applicant waiting list	
	Total	In homestead use	Total 1/	Residential	Total 1/	Residential
State total ..	187,413	32,713	5,781	4,595	17,643	10,798
Hawaii	107,883	20,943	1,548	1,017	6,330	3,059
Maui	28,995	541	560	492	3,488	1,754
Molokai	25,366	9,477	796	320	988	491
Oahu	6,600	921	2,425	2,361	5,031	4,602
Kauai	18,569	831	452	405	1,806	892

1/ Residence, agriculture, or pasture.

Source: Hawaii State Department of Hawaiian Home Lands, 'Aina Ho'opulapula. Annual Report, 1988, pp. 7, 8, and 12, as corrected.

Table 181.-- STATE PUBLIC AND SET-ASIDE LAND INVENTORY, BY COUNTIES: MARCH 2, 1989

[In thousands of acres]

Type of document	State total	City and County of Honolulu	County of Hawaii	County of Kauai	County of Maui
All types	1,414.7	67.9	980.1	155.4	211.3
Public lands	422.7	15.3	326.9	38.2	42.4
General lease 1/	226.4	4.7	186.5	23.1	11.8
Revocable permit 2/	107.9	2.0	71.6	12.1	22.4
Unencumbered lands 3/...	88.5	8.6	68.7	2.9	8.2
Lands set aside to other government agencies	780.9	42.3	536.5	96.5	105.6
Executive order	258.4	13.1	196.2	23.9	25.2
Governor's proclamation	522.5	29.2	340.3	72.7	80.4
Dept. of Hawaiian Home Lands	191.9	4.9	107.8	19.0	60.2
University of Hawaii	1.8	0.7	0.5	0.4	0.1
Hawaii Housing Authority .	1.5	1.2	0.1	0.0	0.1
Highways and roads	15.9	3.5	8.2	1.2	2.9

1/ Long-term leases. Mostly agricultural and pasture land. Includes land covered by water licenses not set aside to other government agencies.

2/ Month-to-month leases. Mostly agricultural and pasture land. Includes land licenses.

3/ Parcels with no documents and not in use.

Source: Hawaii State Department of Land and Natural Resources, Land Management Division, records.

Section 7

RECREATION AND TRAVEL

Statistics on tourism, recreation, sports, museums, parks, pets, and the performing arts appear in this section. Additional information on recreational and resort land use is given in Section 6; on transportation, in Section 18; and on hotels and hotel workers, in Sections 12, 13, 15 and 23.

Approximately 6.1 million visitors stayed overnight or longer in Hawaii during 1988, compared with 3,670,000 in 1978 and only 1,315,000 in 1968. The average number present at any given time during 1988 was 141,000. Total visitor expenditures (exclusive of trans-Pacific fares) in 1988 were estimated by the Hawaii Visitors Bureau at $9.2 billion, compared with $2.1 billion a decade earlier. The 1988 visitor total included 4.0 million from other States, 248,000 from Canada, and 1,217,000 from Japan. Expenditures per visitor day in 1988 averaged $119 for westbound visitors and $586 for the Japanese. Visitor-related spending in 1987 resulted in tax revenues of $831 million and generated 213,000 jobs.

Both visitors and residents have access to a wide range of recreational and cultural facilities. The State has seven national parks and similar areas, 76 State parks, 569 county parks, 56 golf courses, 278 public tennis courts, 2,000 small-boat moorages, 1,600 recognized surfing sites, and 24.4 miles of safe, sandy, accessible beach. Recreational, scenic and cultural facilities reporting more than two million annual visits each in 1988 included Waikiki Beach, the National Memorial Cemetery of the Pacific, Hanauma Bay, Wailua River State Park, and Ala Moana Park. Total visits to 74 museums, State monuments, zoos, and similar attractions in 1988 numbered 21.9 million. About 521,000 Hawaii residents traveled to the Mainland in 1988. Twelve theatrical groups on Oahu reported 1,610 performances of 385 productions for the 1987-1988 season, with a combined audience of 1.25 million. During the 1988-1989 season, the Honolulu Symphony Orchestra gave 134 concerts, with a total attendance of 216,000. During the 1988-1989 school year, attendance at UH-Manoa varsity baseball, basketball, football and volleyball home games was 641,000.

Information on recreation and tourism is issued periodically by the Hawaii Visitors Bureau (particularly in its Annual Research Report), the State Parks Division of the Department of Land and Natural Resources, the Hawaii State Department of Business and Economic Development, U.S. National Park Service, County park and recreation departments, and other organizations. Long-term trends are summarized in Historical Statistics of Hawaii, Section 11. National statistics are given in Section 7 of Statistical Abstract of the United States: 1989.

Table 182.-- PASSENGERS ARRIVING, BY DIRECTION OF TRAVEL AND TRANSIT STATUS: 1979 TO 1988

Direction and status	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
All directions ..	5,291,333	5,380,383	5,305,809	5,580,240	5,546,540	6,107,730	6,314,290	7,063,710	7,324,280	7,894,680
Landing	4,144,183	4,172,640	4,211,250	4,582,020	4,653,450	5,242,770	5,338,170	6,068,990	6,248,550	6,715,600
Intransit	1,147,150	1,207,743	1,094,559	998,220	893,090	864,960	976,120	994,720	1,075,730	1,179,080
Westbound 1/	3,839,041	3,861,059	3,780,383	4,078,360	4,098,720	4,543,890	4,675,690	5,245,690	5,214,520	5,443,980
Landing	3,292,928	3,257,853	3,223,653	3,589,625	3,654,560	4,082,070	4,137,830	4,689,480	4,617,230	4,793,580
Intransit	546,113	603,206	556,730	488,735	444,160	461,820	537,860	556,210	597,290	650,400
Eastbound 2/	1,452,292	1,519,324	1,525,426	1,501,880	1,447,820	1,563,840	1,638,600	1,818,020	2,109,760	2,450,700
Landing	851,255	914,787	987,597	992,390	998,890	1,160,700	1,200,340	1,379,510	1,631,320	1,922,020
Intransit	601,037	604,537	537,829	509,490	448,930	403,140	438,260	438,510	478,440	528,680

1/ Arriving from North America.
2/ Arriving from Asia or Oceania.
Source: Hawaii Visitors Bureau, 1988 Westbound Visitors to Hawaii, p. 5.

Table 183.-- RESIDENCE STATUS OF WESTBOUND PASSENGERS ARRIVING IN HAWAII: 1983 TO 1988

[Based on a 20-percent sample for 1983 and a 10-percent sample thereafter]

Year	All westbound passengers	Visitors destined to Hawaii	Visitors destined beyond Hawaii		Returning residents	Intended residents
			Overnight or longer	In transit		
1983 ...	4,098,740	3,086,995	309,120	444,180	236,725	21,720
1984 ...	4,543,890	3,385,880	335,500	461,820	333,640	27,050
1985 ...	4,675,690	3,386,530	322,080	537,860	403,450	25,770
1986 ...	5,245,690	3,915,770	340,620	556,210	411,440	21,650
1987 ...	5,214,520	3,868,880	335,130	597,290	398,580	14,640
1988 ...	5,443,980	3,903,640	361,090	650,400	521,000	7,850

Source: Hawaii Visitors Bureau, Market Research Department, records.

Table 184.-- WESTBOUND PARTIES, BY VISITOR STATUS: 1987 AND 1988

Year	All surveyed parties	Visitors destined --		Returning residents	Intended residents
		To Hawaii	Beyond Hawaii		
1987 ..	2,626,140	2,133,280	208,410	275,590	8,860
1988 ..	2,719,110	2,136,630	219,300	357,780	5,400

Source: Hawaii Visitors Bureau, 1988 Westbound Visitors to Hawaii, p. 8.

Table 185.-- VISITOR ARRIVALS AND AVERAGE VISITOR CENSUS: 1964 TO 1988

[For earlier years, 1921-1963, see Data Book 1987, table 210]

Year	Visitors staying overnight or longer			Average number of visitors present		
	Total	West-bound 1/	Other	Total	West-bound 1/	Other
1964	563,925	460,290	103,635	16,037	14,901	1,136
1965	686,928	567,218	119,710	17,369	16,057	1,312
1966	835,456	686,886	148,570	20,918	19,271	1,647
1967	1,124,818	893,103	231,715	27,630	24,898	2,732
1968	1,314,571	1,015,844	298,727	32,335	28,784	3,551
1969	1,527,012	1,181,029	345,983	37,198	33,088	4,110
1970	1,746,970	1,326,135	420,835	36,943	32,028	4,915
1971	1,818,944	1,430,325	388,619	40,889	36,504	4,385
1972	2,244,377	1,782,737	461,640	50,143	45,098	5,045
1973	2,630,952	2,067,861	563,091	59,578	53,407	6,171
1974	2,786,489	2,184,620	601,869	63,535	56,939	6,596
1975	2,829,105	2,207,417	621,688	66,308	59,495	6,813
1976	3,220,151	2,551,601	668,550	75,532	68,225	7,307
1977	3,433,667	2,763,312	670,355	83,030	75,684	7,346
1978	3,670,309	3,030,999	639,310	92,034	85,028	7,006
1979	3,960,531	3,139,455	821,076	98,676	89,678	8,998
1980	3,934,504	3,046,132	888,372	96,497	86,788	9,709
1981	3,934,623	2,974,791	959,832	95,968	85,449	10,519
1982	4,242,925	3,278,525	964,400	105,310	94,740	10,570
1983	4,368,105	3,396,115	971,990	108,045	97,395	10,650
1984	4,855,580	3,721,380	1,134,200	118,660	106,260	12,400
1985	4,884,110	3,708,610	1,175,500	116,700	103,820	12,880
1986	5,606,980	4,256,390	1,350,590	132,910	118,110	14,800
1987	5,799,830	4,204,010	1,595,820	134,270	116,780	17,490
1988	6,142,420	4,264,730	1,877,690	141,410	115,760	25,650

1/ Arriving from the Mainland United States or Canada. Based on a 20-percent sample through 1983 and a 10-percent sample thereafter.

Source: Hawaii Visitors Bureau, Annual Research Report (annual) and records.

Table 186.-- RESIDENCE OF OVERNIGHT AND LONGER VISITORS TO HAWAII: 1988

Country of residence	Total	Westbound	Eastbound
All visitors	6,142,420	4,264,730	1,877,690
United States	4,037,110	3,438,380	598,730
Canada	248,170	221,560	26,610
Asia	1,344,690	252,010	1,092,680
Japan	1,216,770	218,300	998,470
Taiwan or China	42,720	3,720	39,000
Korea	21,870	9,970	11,900
Philippines	10,400	5,560	4,840
Singapore	10,340	2,460	7,880
Indonesia	6,240	2,380	3,860
Other Asia	36,350	9,620	26,730
South Pacific	266,760	173,200	93,560
Australia	169,110	116,090	53,020
New Zealand	90,990	55,520	35,470
Other South Pacific	6,660	1,590	5,070
Europe	225,570	167,350	58,220
United Kingdon	79,230	53,520	25,710
West Germany	57,310	48,330	8,980
Other Europe	89,030	65,500	23,530
Other foreign countries	20,120	12,230	7,890

Source: Hawaii Visitors Bureau, 1988 Annual Research Report, p. 5.

Table 187.-- VISITOR DAYS, BY DIRECTION OF TRAVEL: 1987 AND 1988

Year	Total	Westbound	Eastbound and northbound 1/
1987	49,010,010	42,626,730	6,383,280
1988	51,756,610	42,368,160	9,388,450

1/ Approximate totals, based on 4-day average length of stay.

Source: Hawaii Visitors Bureau, 1988 Westbound Visitors to Hawaii, p. 6.

Table 188.-- WESTBOUND VISITOR ARRIVALS, BY COUNTIES VISITED: 1983 TO 1988

[Covers westbound visitors staying overnight or longer anywhere in the State, and any overnight or non-overnight interisland trips reported by these visitors. Based on a 20-percent sample for 1983 and a 10-percent sample thereafter]

Year	State total 1/	City and Co. of Honolulu	Hawaii County	Kauai County	Maui County
1983 ...	3,396,115	2,591,635	712,380	691,940	1,644,605
1984 ...	3,721,380	2,901,320	760,940	814,590	1,854,690
1985 ...	3,708,610	2,828,640	697,380	832,580	1,831,110
1986 ...	4,256,390	3,146,030	786,930	1,014,650	2,001,870
1987 ...	4,204,010	3,078,500	782,550	1,032,840	1,908,780
1988 ...	4,264,730	3,013,850	782,360	1,043,710	1,884,050

1/ Because many visitors visited more than one county, county data sum to totals greater than the State totals shown here.

Source follows next table.

Table 189.-- AVERAGE VISITOR CENSUS, BY COUNTIES: 1983 TO 1988

[Unlike the preceding table, this table includes eastbound and northbound visitors (all of whom have been included with the City and County of Honolulu) as well as westbound visitors. Based on a 20-percent sample for 1983 and a 10-percent sample thereafter]

Year	State total	City and Co. of Honolulu	Hawaii County	Kauai County	Maui County
1983 ...	108,045	66,695	8,690	7,990	24,670
1984 ...	118,660	67,370	7,570	10,930	32,790
1985 ...	116,700	65,280	8,040	11,470	31,910
1986 ...	132,910	73,870	9,870	14,840	34,330
1987 ...	134,270	74,660	10,210	15,510	33,890
1988 ...	141,410	80,450	10,690	16,400	33,870

Source: Hawaii Visitors Bureau, Westbound Visitors to Hawaii (annual), release dated March 1989 and records.

Table 190.-- SUMMARY CHARACTERISTICS OF WESTBOUND VISITORS TO HAWAII: 1978 TO 1988

[Based on a 20-percent sample through 1983 and a 10-percent sample thereafter]

Year	Residence (percent) 1/		Males per 1,000 females	Median age (years)	High status occupations 2/ (percent)	Persons per party
	Pacific & Mountain States	California				
1978	41.3	26.0	810	42.9	59.8	1.81
1979	43.1	25.7	823	41.7	60.1	1.80
1980	47.1	30.6	829	41.3	62.0	1.79
1981	45.8	30.3	810	40.2	61.0	1.82
1982	44.2	29.5	789	39.1	61.5	1.82
1983	49.1	34.3	825	39.8	61.7	1.83
1984	41.9	27.2	812	40.1	61.5	1.84
1985	41.6	27.3	805	39.7	62.1	1.85
1986	45.2	29.8	829	39.7	62.8	1.84
1987	46.1	29.1	825	40.5	62.5	1.81
1988	45.7	29.7	850	40.1	65.1	1.83

Year	Arriving June 1-Aug. 31 (percent)	Repeat visitors 3/ (percent)	Pleasure trip (percent)	Staying in hotel 4/ (percent)	Average intended stay 5/ (days)	Intending to visit Neighbor Islands 6/ (percent)
1978	26.7	42.8	76.5	...	11.2	68.2
1979	27.0	44.1	76.7	74.4	11.2	68.5
1980	28.6	48.4	75.4	71.2	11.2	68.3
1981	28.4	47.2	77.7	70.1	11.3	67.0
1982	27.9	45.9	80.4	64.6	11.2	67.3
1983	28.9	50.4	77.8	61.7	11.0	66.9
1984	26.7	47.3	79.7	62.7	10.9	69.0
1985	25.7	46.3	80.2	58.1	10.7	69.3
1986	27.5	49.2	82.2	55.8	10.5	69.0
1987	27.6	50.0	81.8	57.1	10.5	69.0
1988	26.7	52.0	84.3	59.4	10.4	69.4

Footnotes and source on next page.

Table 190.-- SUMMARY CHARACTERISTICS OF WESTBOUND VISITORS TO HAWAII: 1978 TO 1988 -- Con.

1/ Base includes estimated number of visitors arriving directly from Canada and usually omitted from the Hawaii Visitors Bureau Basic Data Survey.

2/ Party heads only. Calculated as the number of professional, technical, business, managerial and official workers as a percent of all party heads responding to this question.

3/ Party heads only.

4/ Excludes condominiums operating as hotels.

5/ Computed from total visitor days and total visitor arrivals for westbound visitors destined for Hawaii. These data may differ somewhat from corresponding data in the source, because of different computation procedures.

6/ Base includes passengers who did not answer this question.

Source: Hawaii Visitors Bureau, Annual Research Report for 1978-1988 and records.

Table 191.-- VISITOR INDUSTRY PROJECTIONS: 1985 TO 2010

[Series M-K projections, developed by DBED]

Year	Visitor arrivals (1,000)	Average visitor census (1,000)		Hotel employment (1,000)		Visitor and crew expenditures (millions of 1982 dollars)
		State total	Oahu only	State total	Oahu only	
1985 (est.) ..	4,884	117	65	29.0	16.1	4,210
1990	6,521	152	82	34.5	17.9	6,070
1995	7,746	179	89	38.1	18.7	7,324
2000	8,979	206	97	41.3	19.0	8,556
2005	10,159	233	105	43.7	19.0	9,680
2010	11,494	264	113	46.3	19.0	10,952

Source: 1985 from Hawaii Visitors Bureau and Hawaii State Department of Labor and Industrial Relations; 1990-2010 from Hawaii State Department of Business and Economic Development, Population and Economic Projections for the State of Hawaii to 2010 (Series M-K) (November 1988), p. 18.

Table 192.-- DEMOGRAPHIC CHARACTERISTICS OF WESTBOUND VISITORS TO AND BEYOND HAWAII: 1987 AND 1988

[Data limited to visitors staying overnight or longer]

Subject	Visitors to Hawaii		Visitors beyond Hawaii	
	1987	1988	1987	1988
All visitors	3,868,880	3,903,640	335,130	361,090
Age:				
Under 10 years	95,290	89,410	16,040	16,540
10 to 19 years	271,070	261,000	25,740	32,500
20 to 29 years	649,370	674,170	70,510	83,950
30 to 39 years	768,900	810,480	59,900	61,120
40 to 49 years	735,610	784,930	54,180	61,510
50 to 59 years	544,000	532,810	39,520	41,190
60 years and over	573,820	534,030	35,160	34,010
Age not reported	230,820	216,810	34,080	30,270
Sex:				
Male	1,748,950	1,793,810	181,100	190,780
Female	2,119,930	2,109,830	154,030	170,310
Residence (census divisions):				
Pacific	1,506,270	1,525,560	15,000	14,270
Alaska	50,450	46,670	780	1,110
California	1,124,570	1,159,440	11,830	11,200
Oregon	105,860	99,910	620	580
Washington	225,390	219,540	1,770	1,380
Mountain	276,430	255,880	3,240	3,630
West North Central	211,560	202,140	3,000	2,400
West South Central	205,260	208,570	4,040	3,600
East North Central	431,810	420,170	6,100	6,670
East South Central	87,680	84,080	1,860	1,260
New England	143,330	145,260	3,820	2,910
Middle Atlantic	345,850	355,490	8,710	7,340
South Atlantic	314,470	311,340	9,400	8,200
U.S. territories	410	360	2,260	1,540
Canada	212,650	225,760	3,400	3,680
Other foreign	133,160	169,030	274,300	305,590
Residence not reported	-	-	-	-

Source: Hawaii Visitors Bureau, 1988 Westbound Visitors to Hawaii, pp. 10-13.

Table 193.-- TRIP CHARACTERISTICS OF WESTBOUND VISITORS TO AND BEYOND HAWAII: 1987 AND 1988

[Data limited to visitors staying overnight or longer]

Subject	Visitors to Hawaii		Visitors beyond Hawaii	
	1987	1988	1987	1988
All visitors	3,868,880	3,903,640	335,130	361,090
Purpose of trip:				
Pleasure	3,150,120	3,273,300	286,380	317,810
Convention/conference	94,140	161,800	2,230	4,950
Corporate meeting	(NA)	34,170	(NA)	2,210
Incentive	(NA)	19,590	(NA)	480
Other business	468,190	225,160	32,680	18,770
Visit friends & relatives	110,710	124,800	5,130	7,160
Government/military	19,360	22,110	3,670	3,090
Attend school	1,700	1,830	230	250
Other	7,730	21,860	960	2,260
No answer	16,930	19,020	3,850	4,110
Traveler status:				
Organized tour group	503,350	534,310	51,310	58,710
Individual basis	3,073,600	3,259,330	269,140	296,900
Incentive	189,230	-	5,450	-
Government/military	19,640	-	3,670	-
No answer	83,060	110,000	5,560	5,480
Intended accommodations:		-		
Hotel	2,207,300	2,312,610	266,310	299,010
Condominium	821,860	804,180	31,570	29,940
Hotel and condominium	398,270	399,350	9,960	11,570
Friend's or relative's home ..	295,830	253,250	17,750	13,990
Other accommodations	140,830	122,980	7,600	4,830
Not reported	4,790	11,270	1,940	1,750

Source: Hawaii Visitors Bureau, 1988 Westbound Visitors to Hawaii, pp. 7, 19, and 20.

Table 194.-- INTENDED LENGTH OF STAY OF WESTBOUND VISITORS TO AND BEYOND HAWAII: 1986 TO 1988

[Data limited to visitors staying overnight or longer]

Destination and length of stay	1986	1987	1988
VISITORS TO HAWAII			
Total	3,915,770	3,868,880	3,903,640
2 to 6 days	348,680	347,740	397,480
7 to 12 days	2,672,040	2,646,440	2,688,860
13 to 18 days	710,750	685,400	642,720
19 to 24 days	95,990	100,330	91,730
25 to 30 days	44,860	45,440	39,780
31 to 60 days	36,700	38,160	36,590
61 to 90 days	5,230	4,120	5,180
91 to 365 days	1,520	1,250	1,300
Median (days)	10.2	10.1	10.0
VISITORS BEYOND HAWAII			
Total	340.620	335,130	361,090
2 days	28,160	26,420	24,730
3 days	68,680	66,850	70,540
4 to 6 days	165,410	161,890	187,210
7 to 12 days	65,120	65,080	68,070
13 to 365 days	13,250	14,890	10,540
Median (days)	4.8	4.8	4.9

Source: Hawaii Visitors Bureau, 1987 Annual Research Report, p. 14, and 1988 Westbound Visitors to Hawaii, p. 14.

Table 195.-- CHARACTERISTICS OF WESTBOUND VISITOR PARTY HEADS TO AND BEYOND HAWAII: 1987 AND 1988

[Data limited to visitors staying overnight or longer]

Subject	Visitors to Hawaii		Visitors beyond Hawaii	
	1987	1988	1987	1988
All party heads	2,133,280	2,136,630	208,410	219,300
Occupation:				
Professional and technical ...	789,990	831,520	62,260	67,420
Business, managerial, official	522,180	545,200	59,840	62,390
Clerical, office, sales	194,020	184,460	16,270	18,840
Military service	22,550	19,780	2,940	2,170
Other employed	131,760	133,540	13,420	14,580
Military dependent	3,580	3,330	280	230
Retired	291,870	268,210	18,940	18,690
Student	93,540	81,740	22,470	24,970
Other non-employed	49,750	47,850	7,390	6,510
Not reported	34,040	21,000	4,600	3,500
Trips to Hawaii:				
First trip	984,100	963,890	104,500	112,780
Second trip	376,570	386,630	36,200	40,710
Third trip	189,330	193,230	14,850	16,500
Fourth trip and over	419,750	463,890	33,240	32,730
Not reported	163,530	128,990	19,620	16,580
Persons in party:				
1 person	761,710	719,510	121,180	122,240
2 persons	1,164,790	1,213,960	65,660	72,260
3 persons	92,370	93,990	8,570	9,670
4 persons	83,580	81,280	9,010	11,150
5 persons or more	30,830	27,890	3,990	3,980
Average size	1.81	1.83	1.61	1.65

Source: Hawaii Visitors Bureau, 1988 Westbound Visitors to Hawaii, pp. 9, 21, and 22, and records.

Table 196.-- FAMILY INCOME, TRIP CHARACTERISTICS, AND OPINIONS OF MAINLAND VISITORS TO HAWAII: 1984 TO 1987

Subject	1984	1985	1986	1987
Number of respondents in sample	5,779	5,350	5,023	5,177
Family income before taxes (percent) ..	100.0	100.0	100.0	100.0
Under $15,000	3.6	3.4	2.8	2.1
$15,000 to $24,999	12.9	12.5	9.8	8.2
$25,000 to $34,999	20.3	17.8	16.5	14.1
$35,000 to $49,999	26.9	26.4	25.5	25.4
$50,000 to $74,999	23.5	24.6	28.1	29.2
$75,000 and over	12.8	15.4	17.3	21.0
Median income (dollars)	42,300	44,300	47,300	50,100
Education: college graduates (percent)	54.8	54.9	53.9	56.4
Using travel agent (percent)	83.6	84.8	84.4	85.1
Islands visited (percent):				
Oahu	75.9	77.3	72.6	70.0
Kauai	25.6	26.4	30.0	30.4
Maui	44.1	44.1	43.3	42.1
Hawaii	24.3	27.1	28.3	28.0
Hawaii compared with other vacation areas visited (percent)	100.0	100.0	100.0	100.0
Far superior	39.8	40.4	38.9	36.0
Above average	52.5	51.9	53.4	55.4
Average	6.3	7.0	7.1	7.7
Below average	0.9	0.6	0.5	0.8
Quite inferior	0.5	(Z)	0.1	0.2

Z Less than 0.05 percent.

Source: Hawaii Visitors Bureau, Visitor Reaction Survey, 1984-1987 (1989), and unpublished data.

Table 197.-- CHARACTERISTICS OF JAPANESE VISITORS TO HAWAII: 1987 AND 1988

[Based on surveys of Japanese overnight and longer visitors interviewed at Honolulu International Airport while awaiting departure, during four widely spaced periods during each year. Because of methodological problems, the findings appear to be only approximately correct, and direct comparability of the 1987 and 1988 data is questionable]

Characteristic	1987	1988
Sample size	1,776	1,623
Average age (years)	34.0	30.6
Female (percent)	55.7	39.8
Honeymooners (percent)	30.6	50.3
Attended college (percent)	54.2	51.6
Median household income (million yen)	5.3	4.8
Average party size	2.5	2.5
Repeat visitors (percent)	32.1	22.6
Organized tour group/package (percent)	70.3	90.0
Islands visited, including day trips (percent):		
Oahu	94.8	97.8
Molokai	1.4	0.8
Maui	26.7	21.7
Big Island	11.2	6.7
Kauai	18.4	11.8
Length of stay (days):		
Median	4.7	4.9
Average	5.8	6.0
Expenditures, excluding transpacific fare (dollars):		
Per person per day	367	586
Per party during entire trip	3,943	6,074

Source: Hawaii Visitors Bureau, Study of Japanese Visitors to Hawaii 1987 (March 1988) and Study of Japanese Visitors to Hawaii 1988 (April 1989), as corrected.

Table 198.-- MEETINGS AND CONVENTIONS: 1983 TO 1988

Year	No. of meetings held	Estimated attendance	Estimated guest rooms	Estimated revenue ($1,000)
1983	420	211,764	(NA)	156,396
1984	623	255,152	91,605	218,247
1985	740	247,166	104,354	219,882
1986	810	250,703	98,591	249,042
1987	903	317,101	126,181	300,721
1988	886	301,654	131,273	354,363

NA Not available.

Source: Hawaii Visitors Bureau, Meetings and Conventions Department.

Table 199.-- MEETINGS AND CONVENTIONS, BY ISLANDS: 1987 AND 1988

Island	Number of meetings held		Estimated attendance	
	1987	1988	1987	1988
State total	903	886	317,101	301,654
Hawaii:				
Hilo	15	22	4,446	2,654
Kona	91	61	22,646	13,847
Maui	248	192	48,356	58,256
Molokai	7	4	643	492
Oahu	485	507	227,304	197,040
Kauai	57	100	13,706	29,365

Source: Hawaii Visitors Bureau, Meetings and Conventions Department.

Table 200.-- RANKING AS A VACATION DESTINATION, BY MEASURE OF ATTRACTIVENESS: 1985

[Rank of Hawaii among 107 major vacation destinations in the U.S., based on the most recent available data]

Measure of attractiveness	Rank	Measure of attractiveness	Rank
Overall rank	3	Basic necessities	36
		Discovering our heritage	20
Blessings of nature	5	Feeding mind and spirit	24
Outdoor fun	3	Entertainment for all	55

Source: Sylvia McNair, Rand McNally Vacation Places Rated (Rand McNally and Company, 1986), p. 195.

Table 201.-- AVERAGE EXPENDITURE PER VISITOR DAY, BY ORIGIN OF VISITORS: 1931-1932 TO 1988

[Dollars]

Year	Mainlanders	Japanese	Year	Mainlanders	Japanese
1931-32 1/	17.50	(NA)	1980	71.24	185.00
1951	28.00	(NA)	1983	85.88	227.32
1960-61	32.00	(NA)	1986	95.40	358.90
1965-66 1/	37.23	(NA)	1987	102.49	366.63
1974	46.20	123.00	1988 2/	118.66	586.00
1977	54.62	146.85			

NA Not available.

1/ Oahu only.

2/ Several authorities have questioned the accuracy of the Japanese average reported here.

Source: Hawaii Visitors Bureau, 1983 Visitor Expenditure Survey (1985), p. 31; Study of Japanese Visitors to Hawaii 1987 (March 1988), p. 28; 1988 Visitor Expenditure Survey (1989), p. 36; Study of Japanese Visitors to Hawaii 1988 (April 1989), p. 26; and unpublished 1986 Japanese estimate.

Table 202.-- EXPENDITURES PER VISITOR DAY BY WESTBOUND VISITORS, BY EXPENDITURE TYPE: 1987 AND 1988

[In dollars. Excludes transpacific travel costs]

Expenditure type	1987	1988		
		State-wide	On Oahu	On the Neighbor Islands
All items	102.49	118.66	113.58	159.45
Food and beverage	22.51	25.56	25.14	30.92
Restaurants	15.92	17.93	16.92	24.04
Dinner shows	2.39	2.91	3.78	1.50
Nightclubs	1.80	2.00	2.09	1.99
Groceries	2.40	2.72	2.35	3.39
Entertainment	7.00	8.72	7.99	12.08
Attractions	5.83	6.96	6.71	9.46
Other entertainment	1.17	1.76	1.28	2.62
Transportation	11.28	13.36	9.43	32.12
Ground transportation	0.80	0.96	1.05	1.00
U-drive cars	3.14	4.02	2.95	8.34
Interisland travel	4.48	5.38	1.82	20.50
Sightseeing tours	2.86	3.00	3.61	2.28
Clothing	8.28	8.90	9.94	7.07
Gifts and souvenirs	8.62	9.70	10.36	8.96
Lodging	38.47	45.39	43.62	60.93
All other	4.03	4.85	4.90	4.94
Adjustment 1/	2.30	2.18	2.20	2.43

1/ Estimated amount of underreporting for listed categories.

Source: Hawaii Visitors Bureau, *1988 Visitor Expenditure Survey* (1989), pp. 11 and 12.

Table 203.-- EXPENDITURES PER VISITOR DAY BY WESTBOUND VISITORS, BY VISITOR OR TRIP CHARACTERISTICS: 1988

Visitor or trip characteristics	Dollars	Visitor or trip characteristics	Dollars
All westbound visitors	118.66	Previous visits:	
		First trip	126.23
Group tour:		Repeat visitors	109.79
Organized tour group	126.01		
Individually arranged	116.59	Party size:	
		1 person	164.24
Accommodations:		2 persons	113.01
Hotel only	119.11	3 persons	105.46
Condo only	108.81	4 persons or more	92.98
Guests of friends, relatives	*57.88	Purpose of trip:	
Hotel/condo combination	123.83	Pleasure	118.99
		Business	125.76
Length of stay:		Other	94.45
1 to 6 days	124.81		
7 to 12 days	118.12	Time of year:	
13 to 18 days	120.83	First quarter	119.55
19 days or longer	107.23	Second quarter	111.37
		Third quarter	119.54
		Fourth quarter	123.95
Residence: 1/			
Pacific	111.33	Arrived on package tour:	
Mountain	103.52	Yes	120.19
W.N. Central	103.24	No	115.51
W.S. Central	117.94		
E.N. Central	122.46	Children in party:	
E.S. Central	135.43	Yes	90.49
New England	137.63	No	120.61
Mid Atlantic	128.88		
S. Atlantic	122.36		

* Sample under 25; subject to considerable sampling variation.

1/ Census divisions; see source, p. 29.

Source: Hawaii Visitors Bureau, 1988 Visitor Expenditure Survey (1989), pp. 11-25.

Table 204.-- PER DIEM COST OF BUSINESS TRAVEL TO HONOLULU: 1988

[Average daily expenditure of a business traveler for lodging, food, and car rental in the Honolulu Metropolitan Statistical Area]

Item	Amount (dollars)	Percent of U.S. average 1/	Rank 1/
Total per diem cost	158.65	96.8	37
Food	2/ 52.55	95.3	40
Lodging	68.37	105.7	32
Car rental	37.73	85.6	94

NA Not available.

1/ Based on the 100 leading business travel MSAs in the U.S.

2/ Breakfast, $7.51; lunch, $9.81; dinner, $26.75; tax and 15 percent tip, $8.48.

Source: "1989 Corporate Travel Index," Corporate Travel (offprint, 1989); Honolulu Star-Bulletin, May 18, 1989, pp. C-1 and C-4.

Table 205.-- JAPANESE VISITOR ARRIVALS AND EXPENDITURES: 1983 TO 1988

[Revised from Data Book 1988, table 218, and not directly comparable to the earlier estimates shown there]

Subject	1983	1984	1985	1986	1987	1988
Arrivals (1,000)	572	639	709	731	905	1,217
Average stay (days)	5	5	5	5	5	6
Expenditures 1/ (mil. dol.)	656	749	855	1,312	1,658	4,278

1/ Approximate figures based on limited information. The 1988 estimate is preliminary and subject to significant revision.

Source: Hawaii Visitors Bureau, unpublished estimates, Dec. 14, 1989.

Table 206.-- ESTIMATED EXPENDITURES BY VISITORS TO HAWAII, BY COUNTIES: 1970 TO 1988

[Millions of dollars. Interisland air fares have been distributed on a prorata basis. Expenditures by eastbound visitors have been included with the City and County of Honolulu. Excludes expenditures by Hawaii residents]

Year	State total	City and County of Honolulu	Other counties			
			Total	Hawaii	Kauai	Maui
1970	595	442	153.0	53.4	45.1	54.5
1971	705	507	198.0	67.7	56.1	74.2
1972	840	609	231.0	77.0	61.9	92.1
1973	1,020	777	243.0	81.9	63.2	97.9
1974	1,225	928	297.5	99.3	73.9	124.3
1975	1,360	1,004	355.9	114.6	87.2	154.1
1976	1,640	1,213	427.2	126.8	101.8	198.6
1977	1,845	1,377	468.5	131.2	109.9	227.4
1978	2,146	1,569	577.0	152.9	137.9	286.9
1979	2,537	1,867	669.8	162.0	159.1	348.7
1980	2,875	2,097	777.5	187.6	189.3	400.6
1981	3,200	2,394	805.9	179.2	197.3	429.4
1982	3,700	2,748	951.8	200.9	210.6	540.3
1983	3,974	2,653	1,320.9	277.2	250.8	792.9
1984	4,582	2,895	1,686.6	248.9	359.4	1,078.3
1985	4,884	3,084	1,799.5	285.9	407.9	1,105.7
1986	5,500	3,444	2,056.2	343.8	516.9	1,195.5
1987 1/ ...	6,600	4,370	2,229.6	381.8	580.1	1,267.7
1988 1/ ...	9,200	6,553	2,647.3	464.2	712.1	1,471.0

1/ Preliminary estimate.

Source: Hawaii Visitors Bureau, "Neighbor Island Statistics," tabular release dated May 1989.

Table 207.-- ESTIMATED DIRECT VISITOR-RELATED EXPENDITURES: 1970 TO 1987

[In millions of dollars]

Year	Total	Visitors	Airline and ship crews	Overseas airlines 1/
1970	714.6	595	8.0	111.6
1971	835.8	705	8.0	122.8
1972	982.2	840	9.0	133.2
1973	1,181.6	1,020	8.0	153.6
1974	1,408.6	1,225	12.6	171.0
1975	1,559.4	1,360	8.4	191.0
1976	1,890.8	1,640	6.8	244.0
1977	2,093.8	1,845	7.8	241.0
1978	2,427.4	2,146	11.4	270.0
1979	2,947.7	2,537	11.6	399.1
1980	3,406.2	2,875	13.2	518.0
1981	3,775.0	3,200	15.0	560.0
1982	4,235.0	3,700	15.0	520.0
1983	4,483.0	3,974	14.0	495.0
1984	5,139.0	4,582	15.0	542.0
1985	5,458.0	4,900	16.0	542.0
1986	6,110.0	5,550	18.0	542.0
1987	7,250.0	6,600	20.0	630.0

1/ Includes payroll, fuel taxes, and landing fees.

Source: Hawaii State Department of Planning and Economic Development, The Economic Impact of Tourism in Hawaii: 1970 to 1980, Research Report 1983-2 (April 1983), and unpublished 1981-1987 estimates based on the DBED Input-Output Model.

Table 208.-- ECONOMIC ACTIVITY GENERATED BY VISITOR-RELATED EXPENDITURES: 1970 TO 1987

Year	Visitor-related expenditures 1/ (million dollars)	Total sales or output 2/ (million dollars)	Household income (million dollars)	State and county tax revenues (million dollars)	Jobs 2/ (1,000)
1970	714.6	1,290.8	459.7	69.7	76.6
1971	835.8	1,507.0	538.6	82.8	87.3
1972	982.2	1,766.2	633.6	96.7	96.2
1973	1,181.6	2,122.0	763.5	118.7	105.6
1974	1,408.6	2,522.3	910.7	141.0	112.8
1975	1,559.4	2,751.7	995.9	165.7	113.5
1976	1,890.8	3,263.0	1,184.0	201.4	123.1
1977	2,093.8	3,642.9	1,324.9	225.0	127.3
1978	2,427.4	4,238.7	1,544.2	262.1	132.4
1979	2,947.7	5,005.0	1,826.8	316.7	143.3
1980	3,406.2	5,719.5	2,091.0	353.0	150.0
1981	3,775.0	6,265.2	2,294.1	390.1	154.4
1982	4,235.0	7,162.3	2,627.1	436.9	165.4
1983	4,483.0	7,587.9	2,788.9	461.6	166.2
1984	5,139.0	8,655.9	3,185.6	537.0	180.7
1985	5,458.0	9,210.9	3,390.2	578.8	186.5
1986	6,110.0	10,263.7	3,782.5	657.2	196.3
1987	7,250.0	12,028.3	4,455.2	3/ 831.0	213.3

1/ Direct expenditures by visitors, airline and ship crews, and overseas airlines.

2/ Direct, indirect, and induced.

3/ Partly reflects visitor accommodations tax enacted in 1986 and effective January 1, 1987.

Source: Hawaii State Department of Planning and Economic Development, *The Economic Impact of Tourism in Hawaii: 1970 to 1980*, Research Report 1983-2 (April 1983), and revised 1970-1987 estimates based on the DBED Input-Output Model.

Table 209.-- ECONOMIC ACTIVITY GENERATED BY VISITOR-RELATED EXPENDITURES, BY INDUSTRY: 1987

Year and industry	Direct visitor-related expenditures 1/ (million dollars)	Total sales or output 2/ (million dollars)	Total household income (million dollars)	Jobs (1,000)	
				Total 3/	Direct only
All industries	7,250.0	12,028.3	4,455.2	213.3	118.5
Agriculture	39.3	86.8	38.5	0.6	0.3
Textile and apparel mfg.	67.3	119.2	41.1	3.2	1.9
Other manufacturing	199.7	391.4	103.8	6.2	2.0
Air transportation	537.3	945.6	306.3	14.8	6.6
Other transportation	207.9	428.3	164.3	3.9	2.0
Wholesale trade 4/	173.9	366.9	158.2	7.4	3.6
Eating and drinking places ...	1,287.3	2,510.2	759.5	48.9	28.5
Other retail trade 4/	687.7	1,478.5	687.7	38.8	25.4
Hotel services and real estate	2,088.0	4,656.3	1,774.8	63.7	33.0
Other services	507.3	1,045.1	421.1	25.7	15.3
Imports	1,454.3	-	-	-	-

1/ Direct expenditures by visitors, airline and ship crews, and overseas airlines.

2/ Direct, indirect, and induced sales.

3/ Direct, indirect and induced jobs.

4/ Expenditure figure refers to mark-up earned, not total sales revenue.

Source: Hawaii State Department of Business and Economic Development, unpublished estimates based on the DBED Input-Output Model.

Table 210.-- VISITOR INDUSTRY PRICES, PRICE DEFLATOR, AND PRICE INDEXES: 1968 TO 1988

Year	Implicit price deflator 1/ (1982=100)	Average daily room rate 2/ (dollars)	1-way air fares (dollars)		Honolulu consumer price index 5/ (1982-84=100)		
			San Francisco-Honolulu 3/	Honolulu-Kahului 4/	Eating out	Apparel, upkeep	All items
1968 ..	38.7	23.85	110.03	13.65	33.2	50.7	37.7
1969 ..	40.7	23.98	110.03	15.75	35.6	53.4	39.4
1970 ..	45.2	25.74	97.30	19.00	38.6	56.2	41.5
1971 ..	46.1	24.28	111.35	19.00	40.4	57.4	43.2
1972 ..	47.1	21.83	111.35	19.00	41.7	58.9	44.6
1973 ..	48.9	23.64	110.63	19.64	44.3	60.6	46.6
1974 ..	53.0	26.56	126.64	20.64	49.9	65.1	51.5
1975 ..	58.3	29.75	126.64	21.38	56.9	69.0	56.3
1976 ..	62.5	29.54	126.64	23.00	61.5	71.6	59.1
1977 ..	67.5	34.28	132.05	25.00	65.1	74.3	62.1
1978 ..	73.6	38.49	129.05	27.00	69.7	78.8	66.9
1979 ..	81.0	44.41	141.05	29.00	75.2	83.9	74.3
1980 ..	88.9	47.28	211.08	41.00	81.0	89.8	83.0
1981 ..	95.8	49.73	296.09	51.00	88.5	94.5	91.7
1982 ..	100.0	51.78	328.10	48.00	95.5	98.4	97.2
1983 ..	104.4	54.78	353.14	49.95	100.1	101.4	99.3
1984 ..	108.9	59.25	353.14	49.95	104.5	100.2	103.5
1985 ..	116.5	68.84	364.00	44.95	108.6	99.6	106.8
1986 ..	119.5	73.20	364.00	46.95	111.4	99.8	109.4
1987 ..	125.0	80.09	486.00	48.95	115.6	102.5	114.9
1988 ..	132.0	87.94	494.00	48.95	121.0	106.8	121.7

1/ For visitor and crew expenditures. From DBED, Hawaii Gross State Product Accounts: 1958-1988 (1988), table 1-5 and underlying data. Indexes for 1986-1988 are preliminary.

2/ From Pannell Kerr Forster, Trends in the Hotel Industry, Hawaii (monthly).

3/ Coach or Economy weekday fare, including taxes, as of July 1, by Pan American World Airways through 1979 and United Airlines thereafter. From air fare chronology published in DPED, Statistical Report 103, and Data Book, 1979-1988.

4/ Regular fare, including taxes, as of July 1, by Hawaiian Airlines. From chronology published in DPED, Statistical Report 103, and Data Book, 1979-1988.

5/ Honolulu CPI for all urban consumers, from U.S. Bureau of Labor Statistics computer tape tabulated by DBED.

Source: See above footnotes.

Table 211.-- HAWAII VISITORS BUREAU INCOME AND EXPENDITURES: 1983 TO 1988

[In dollars. Years ended June 30]

Year	Income				Expenditures
	Total	State appropriations 1/	Private subscriptions	Other 2/	
1983	4,484,734	3,216,000	966,146	302,588	4,485,156
1984	4,384,978	2,706,732	1,108,374	569,872	4,384,264
1985	5,345,724	4,009,391	1,125,914	210,419	5,347,648
1986	6,657,841	5,169,391	1,200,112	288,338	6,657,704
1987	8,652,826	7,069,391	1,242,111	341,324	8,652,487
1988	13,926,560	12,230,000	1,353,259	343,301	13,720,078

1/ Net after refunds (if any) to the State.

2/ May include income from Federal grants, mainland promotional programs, literature sales, convention servicing, and interest.

Source: Peat, Marwick, Mitchell & Co., Hawaii Visitors Bureau, Financial Statements and Schedules (annual).

Table 212.-- MEDIA ADVERTISING EXPENDITURES FOR HAWAII TOURISM: 1985 AND 1986

[$1,000]

Year	All media	Newspaper	Magazine	Television	Radio	Outdoor
1985	2,187	203	1,846	85	53	-
1986	1,641	10	924	872	48	1

Source: Trends in Travel and Tourism Advertising Expenditures in United States Measured Media 1982-1986, A Special Report for Ogilvy & Mather, July 1987, as cited in Hawaii State Department of Business and Economic Development, Tourism Branch, A Report on Tourism Destinations Competing with Hawaii, by Arthur Young, January 1989, Appendix.

Table 213.-- CHARACTERISTICS OF RESIDENTS RETURNING FROM THE MAINLAND: 1983 TO 1988

Year	Number returning	Oahu residents 1/ (percent)	Median age (years)	Males per 100 females	Persons per party
1983	236,725	84.7	36.5	102.2	1.45
1984	333,640	82.8	38.2	100.4	1.43
1985	403,450	82.1	39.2	100.5	1.43
1986	411,440	79.9	39.7	98.8	1.45
1987	398,580	79.6	41.7	96.4	1.45
1988	521,000	80.2	40.0	96.5	1.46

Year	Party heads with high-status occupations 2/ as percent of--		Days absent		Average number absent 3/
	All party heads	Employed civilian party heads	Median	Mean	
1983	51.3	78.4	12.8	17.2	11,200
1984	53.6	80.1	12.5	16.1	14,700
1985	56.2	82.0	12.2	15.3	16,900
1986	55.2	80.6	11.0	14.0	15,735
1987	56.2	81.7	10.7	13.1	14,036
1988	53.9	78.5	10.8	13.2	18,886

1/ Data for Oahu include persons specifying military bases rather than island of residence.

2/ Party heads reporting professional, technical, business, managerial, and official occupations.

3/ For persons absent 1 to 365 days.

Source: Hawaii State Department of Business and Economic Development, Out-of-State Travel by Hawaii Residents During 1986 (Statistical Report 202, September 22, 1987), table 2; and records.

Table 214.-- NUMBER OF WESTBOUND RETURNING RESIDENTS AND AVERAGE ABSENCE-DAYS, BY PORT OF DEPARTURE: 1988

Port of departure	Number returning	Reporting absence of 1-90 days 1/	
		Persons	Average absence (days)
All returning residents	521,000	517,351	13.2
Los Angeles	131,497	130,365	13.7
San Francisco	120,773	119,783	12.8
Other/Los Angeles 2/	61,284	60,820	11.9
New York/Los Angeles	42,956	42,753	15.2
Las Vegas	33,894	33,833	4.6
Chicago	27,910	27,757	14.6
Seattle	23,176	23,069	14.7
Dallas	12,638	12,624	13.8
Other	66,872	66,347	15.9

1/ Excludes over 90 days or not reported.

2/ Includes other connecting flights through Los Angeles to Hawaii.

Source: Hawaii State Department of Business and Economic Development, special tabulation from Hawaii Visitors Bureau data.

Table 215.-- PASSPORTS ISSUED BY HONOLULU OFFICE: 1978 TO 1988

Year	Number	Year	Number	Year	Number
1978	28,533	1982	41,906	1986	43,731
1979	28,974	1983	41,446	1987	47,979
1980	31,928	1984	52,250	1988 1/	43,875
1981	34,191	1985	56,140		

1/ Includes some passports issued in California.

Source: U.S. Department of State, Passport Services, Honolulu Region, records.

Table 216.-- INTERISLAND, MAINLAND, AND FOREIGN ROUND TRIPS BY ADULT OAHU RESIDENTS DURING THE PAST 12 MONTHS: 1988 AND 1989

[Percent distributions]

Number of trips	1988 1/	1989 2/
INTERISLAND TRIPS		
All adult residents	100	100
None	48	43
1 or 2	31	30
3 to 5	12	18
6 to 10	6	5
11 or more	3	4
Average number of trips	2.5	2.2
MAINLAND ROUND TRIPS		
All adult residents	100	100
None	46	49
1	29	27
2 to 5	21	20
6 or more	4	4
Average number of trips	1.2	1.2
FOREIGN ROUND TRIPS		
All adult residents	100	100
None	82	82
1	12	13
2 or more	6	5
Average number of trips	0.3	0.3

1/ Based on a telephone survey of 400 adult residents of Oahu, May 12-19, 1988.

2/ Based on a telephone survey of 401 adult residents of Oahu, July 22-29, 1989.

Source: Omnitrak Research and Marketing Group, Inc., survey cited in Honolulu Star-Bulletin, September 5, 1989 (p. C-1), September 12, 1989 (p. C-1), and September 19, 1989 (p. C-1).

Table 217.-- ATTENDANCE AT MUSEUMS AND OTHER CULTURAL ATTRACTIONS: 1986 TO 1988

[Calendar year data unless otherwise specified. Some 1986 and 1987 data have been revised]

Island and cultural attraction	1986	1987	1988
State total	15,881,948	18,793,232	21,944,703
Oahu	12,630,279	13,078,879	13,541,445
Bernice P. Bishop Museum 1/	278,083	246,113	362,906
Contemporary Arts Center 2/	25,500	26,700	32,100
Damien Museum and Archives	10,618	8,814	11,026
Dole Cannery tours	154,964	160,000	350,000
Foster Botanic Garden	61,015	59,352	57,532
Fred Ohrt Museum	3,593	5,221	3,334
Harold L. Lyon Arboretum 1/	(NA)	(NA)	11,795
Hawaii Maritime Center 3/	105,000	100,000	1,952
Hawaii Nature Center	13,479	14,681	23,142
Honolulu Academy of Arts 4/	280,842	258,789	230,736
Honolulu Zoo	801,418	758,485	875,825
Hoomaluhia Park	52,868	55,265	59,323
Iolani Palace State Monument 1/	72,000	76,000	72,000
Mission Houses Museum 5/	26,573	27,035	26,746
Moanalua Gardens Foundation 6/	8,243	11,116	10,318
Mormon Temple Grounds (Church of Jesus Christ of Latter-Day Saints, Hawaii Temple Visitor's Center)	216,995	239,698	232,767
National Memorial Cemetery of the Pacific	5,122,003	5,343,973	5,623,916
Pacific Submarine Museum 7/	40,000	20,000	-
Paradise Cove Luau Park	239,767	307,603	298,198
Paradise Park	225,153	258,208	215,677
Polynesian Cultural Center	870,000	1,001,708	991,500
Puu o Mahuka Heiau State Monument 1/	11,000	9,000	7,000
Queen Emma Summer Palace	26,298	18,209	23,793
Royal Mausoleum State Monument 1/	76,000	77,000	74,000
Sea Life Park	684,530	758,978	739,041
Senator Fong's Plantation and Gardens 8/	-	-	32,578
Tropic Lightning Museum	9,100	7,000	4,500
Ulu Po Heiau State Monument 1/	5,000	4,000	2,000
U.S. Army Museum, Ft. DeRussy	109,711	91,341	108,123
U.S.S. Arizona Memorial	1,809,080	1,845,557	1,778,347
Visiting either Memorial or Visitor Center	1,435,885	1,522,635	1,462,395
Aboard non-landing tour boats	373,195	322,922	315,952
U.S.S. Bowfin WWII Submarine Exhibit 9/	284,202	206,610	245,742
University of Hawaii Art Gallery	50,000	50,000	50,000
Wahiawa Botanic Garden	17,696	17,369	17,400
Waikiki Aquarium 10/	330,071	332,219	301,232

Continued on next page.

Table 217.-- ATTENDANCE AT MUSEUMS AND OTHER CULTURAL ATTRACTIONS: 1986 TO 1988 -- Con.

Island and cultural attraction	1986	1987	1988
Oahu - con.:			
Waimea Falls Park	601,477	672,835	654,896
Waipahu Cultural Garden Park	8,000	10,000	12,000
Hawaii	1,837,180	4,286,157	6,908,749
Hawaii Tropical Botanical Gardens	32,000	34,000	33,051
Greenwell Store Museum	5,000	5,100	5,000
Hulihee Palace	21,350	24,635	25,470
Jagger Museum 11/	-	1,373,000	1,900,000
Kamuela Museum	16,000	(NA)	(NA)
Kealakekua Bay State Historical Park 1/	36,000	57,000	62,000
Kilauea Visitor Center	1,055,000	1,310,000	1,800,000
Lapakahi State Historical Park 1/	71,000	65,000	69,000
Lyman House Memorial Museum 11/	20,199	15,252	16,414
Panaewa Rainforest Zoo	53,212	67,170	69,814
Parker Ranch Historic Homes 12/	-	-	(NA)
Parker Ranch Visitor Center	27,419	23,000	28,000
Volcano Art Center	500,000	750,000	1,500,000
Wahaula Visitor Center	(NA)	562,000	1,400,000
Maui	897,085	928,461	988,207
Alexander & Baldwin Sugar Museum 13/	-	5,406	24,517
Halekii-Pihana Heiaus State Monument 1/	50,000	22,000	38,000
Hale Waiawai O Hana	8,587	9,938	8,266
Kula Gardens	22,540	18,150	19,750
Lahaina Restoration Foundation	167,724	179,878	174,827
Baldwin Missionary Home Museum	43,454	47,400	46,302
Brig Carthaginian 14/	76,835	78,278	52,185
Hale Pa'ahao (Old Lahaina Prison) 15/	-	-	17,650
Hale Pa'i	7,615	6,500	6,200
Kalaupapa Lighthouse Exhibit 16/	-	11,500	19,910
Wo Hing Temple	39,820	36,200	32,580
Maui Historical Society Museum	18,234	18,306	17,682
Maui Tropical Plantation	550,000	451,000	455,000
Maui Zoological & Botanical Gardens	80,000	80,000	67,000
Whalers Village Museum 17/	(NA)	143,783	183,165
Kauai	502,638	486,528	487,593
Coco Palms Zoo	6,142	6,142	6,142
Grove Farm Homestead	4,901	4,379	4,408
Hanalei Museum	6,500	6,500	6,500
Haraguchi Rice Mill Museum 18/	-	-	350
Kauai Museum 19/	25,345	28,748	29,268
Kokee Natural History Museum	83,485	83,979	95,213
Olu Pua Gardens	6,696	(NA)	(NA)

Continued on next page.

Table 217.-- ATTENDANCE AT MUSEUMS AND OTHER CULTURAL ATTRACTIONS: 1986 TO 1988 -- Con.

Island and cultural attraction	1986	1987	1988
Kauai - con.:			
Pacific Tropical Botanical Garden	6,899	10,500	12,000
Russian Fort Elizabeth State Historical Park 20/	359,000	343,000	331,000
Waioli Mission House	3,670	3,280	2,712
Molokai	14,766	13,207	18,709
Kalaupapa Settlement	6,737	8,395	7,900
Molokai Ranch Wildlife Park 21/	8,029	4,812	5,919
R. W. Meyer Sugar Mill 22/	-	-	4,890

NA Not available.

1/ Years ended June 30.

2/ Includes both the Makiki Heights facility opened in October 1988 (5,000 between October 22 and December 31, 1988) and the Honolulu Advertiser Gallery (27,100 for entire year).

3/ Closed for renovation during first 11 months of 1988.

4/ Includes Academy Theatre (85,697 in 1986, 82,135 in 1987, and 56,151 in 1988).

5/ Total admissions for calendar years. Before 1986, data referred to years ended September 30, and were limited to paid admissions.

6/ Includes regular admissions (1,382 in 1986, 1,024 in 1987, NA in 1988) and school program (6,861 in 1985-86, 10,092 in 1986-87, and 10,318 in 1987-88).

7/ Closed at end of May 1987.

8/ Opened April 11, 1988.

9/ Closed March 2-April 6, 1987 and April 23-June 19, 1987.

10/ Includes both adult (210,433 in 1988) and child (90,799) attendance. Closed several months during 1988 for renovation.

11/ Opened January 13, 1987.

12/ Officially opened December 1, 1988.

13/ Opened July 15, 1987.

14/ Closed September 1, 1988 to April 1, 1989 for repairs.

15/ Opened in April 1988.

16/ Opened April 1987.

17/ Opened in mid-1986.

18/ To open officially in 1989.

19/ Years ended December 31, 1986 and 1988 and September 30, 1987.

20/ Years ended June 30. Attendance estimates reflect heavy use of restrooms by tour bus passengers.

21/ Closed part of 1987 for maintenance.

22/ Opened to general public December 5, 1988.

Source: Hawaii State Department of Business and Economic Development, Attendance at Cultural Attractions During 1988 (Statistical Report 212, July 1989), table 2.

Table 218.-- HONOLULU SYMPHONY ORCHESTRA: 1978-1979 TO 1988-1989

Season	Average number of orchestra personnel	Number of performances	Total attendance	Operating expenses (dollars)
1978-1979	75	118	192,413	2,398,020
1979-1980	75	122	186,135	2,189,172
1980-1981	80	107	155,622	2,211,082
1981-1982	80	109	168,900	2,627,293
1982-1983	80	142	204,193	2,817,196
1983-1984	80	133	194,600	2,562,500
1984-1985	80	120	167,500	2,966,700
1985-1986	80	137	208,370	3,053,257
1986-1987 1/ ..	80	85	139,703	2,394,804
1987-1988	79	127	184,897	4,143,347
1988-1989	80	134	215,808	4,234,275

1/ Season shortened by musicians' strike, Aug. 8-Nov. 26, 1986.
Source: Honolulu Symphony Society, records.

Table 219.-- PERFORMING ARTS STATISTICAL SUMMARY, FOR OAHU: 1977-1978 TO 1987-1988 SEASONS

Season	Number of groups reporting	Productions	Performances	Attendance
1977-1978	12	254	1,513	850,802
1978-1979	12	219	1,024	766,018
1979-1980	12	183	1,178	723,581
1980-1981	13	254	1,128	830,585
1981-1982	12	500	1,300	804,647
1982-1983	13	502	1,376	936,821
1983-1984	13	695	1,734	1,060,367
1984-1985	12	773	1,809	1,086,930
1985-1986	12	353	1,245	845,328
1986-1987	12	439	1,354	875,063
1987-1988	12	385	1,610	1,248,828

Source: DBED mail and telephone surveys.

Table 220.-- PERFORMING ARTS, FOR OAHU: 1987-1988 SEASON

Name of organization and type of performance	Productions	Performances	Attendance
All reporting groups	385	1,610	1,248,828
Brigham Young University - Hawaii Campus	5	18	4,000
Chaminade University of Honolulu	2	9	600
Hawaii Loa College	4	4	280
Honolulu Community Theatre	8	125	47,702
Honolulu Department of Auditoriums, total	129	274	658,899
Ballets	1	6	11,099
Concerts	90	170	377,290
Operas	3	9	16,313
Rock shows	12	15	87,462
Other dramatic and musical productions	23	74	166,735
Honolulu Theatre for Youth	7	324	144,592
Leeward Community College	65	239	106,310
Manoa Valley Theatre (formerly HPAC)	6	128	18,684
The Starving Artists' Theatre Company	10	172	32,800
Adults	6	52	2,800
Children	4	120	30,000
U.S. Army Support Command, total	125	184	193,372
Army Community Theatre's musicals	4	28	10,331
DOD/USO touring shows	15	46	16,808
Showmobile activities	36	36	114,212
Soldier bands and jam sessions	67	67	16,021
Special events	3	7	36,000
University of Hawaii at Manoa	20	110	39,917
Windward Theater Guild	4	23	1,672

Source: DBED mail and telephone survey.

Table 221.-- RECREATIONAL FACILITIES AND RESOURCES, BY COUNTIES: 1985

Recreation area/facility	State total	Kauai	Honolulu	Maui	Hawaii
Recreation area:					
Total acreage	1,572,891	137,192	59,400	249,656	1,126,643
Unimproved acreage	1,563,753	136,274	53,527	248,898	1,125,055
Improved acreage	9,138	918	5,873	758	1,588
Passive	3,334	275	2,057	254	747
Active	5,033	611	3,259	437	726
Service	772	32	558	67	115
Aquatic:					
Boat launch lanes	79	10	37	10	22
Boat moorages	2,750	95	2,053	254	348
Swimming pools	77	6	58	6	7
Beach acreage	490	101	306	49	34
Beach length (miles)	56	11	34	6	5
Wild shoreline (miles) ..	39	1	1	2	35
Nonstructured/land based:					
Camping sites	2,065	339	499	403	824
Public hunting (acres) ..	1,282,458	102,517	26,032	192,804	961,105
Court, courses fields, and playgrounds:					
Golf courses (holes)	1,038	144	441	219	234
Tennis courts	638	100	360	75	103
Sport fields	453	51	324	46	32
Sport courts	683	38	551	43	51
Trails:					
Hiking/equestrian (miles)	1,112	206	78	167	661
Bikeways (miles)	66	1	38	27	0

Source: Hawaii State Department of Land and Natural Resources, State Recreation Functional Plan Technical Reference Document and State Comprehensive Outdoor Recreation Plan (SCORP) (December 1985), p. 27.

Table 222.-- NATIONAL PARKS: 1978 TO 1988

Year and area	Acreage, Dec. 31 1/ Total	Federal	Non-federal	Visits 2/
1978	236,574	235,208	1,366	3,572,504
1979	236,574	235,208	1,366	3,384,343
1980	247,488	235,243	12,245	3,479,797
1981	247,488	235,243	12,245	4,225,217
1982	247,488	235,243	12,245	4,950,621
1983	247,349	235,243	12,106	5,252,385
1984	247,349	235,243	12,106	5,429,289
1985	247,349	235,243	12,106	4,029,929
1986	247,349	235,565	11,784	4,736,281
1987	247,349	235,565	11,784	5,225,641
1988	247,349	235,624	11,725	5,198,428
AREAS: 1988				
Hawaii Volcanoes National Park	207,643	207,643	-	1,933,566
Haleakala National Park	27,350	27,350	-	1,344,220
Puuhonua o Honaunau National Historical Park	181	181	-	392,537
Kaloko-Honokohau National Historical Park	1,161	381	780	12,462
Puukohola Heiau National Historic Site	100	34	66	53,248
U.S.S. Arizona Memorial 4/	12	12	-	1,462,395
Kalaupapa National Historical Park	10,902	23	10,879	(NA)

NA Not available.

1/ Data exclude the Olaa Forest Tract. This 9,654-acre tract is entirely in Federal ownership, is managed by the National Park Service, and has been designated as part of the wilderness system by the Congress, but it is not within the legally authorized boundary of Hawaii Volcanoes National Park.

2/ Decline in 1985 reflects use of new benchmark data for Hawaii Volcanoes National Park estimates, rather than an actual drop in visits.

3/ Not yet open to the public.

4/ The U.S.S. Arizona Memorial is wholly within the Pearl Harbor Naval Base. The acreage figure is the approximate extent of the total area over which the National Park Service has been granted use rights by the U.S. Navy.

Source: U.S. Department of the Interior, National Park Service, Pacific Area Office, records.

Table 223.-- STATE PARKS AND HISTORIC SITES: 1979 TO 1989

Year and island	Number of areas, June 30	Acreage, June 30		Recreation visits, year ended June 30 (1,000)
		Total	Developed	
1979	65	20,625	880.0	17,911
1980	66	20,637	916.7	17,169
1981	71	20,836	937.8	15,611
1982	72	20,885	937.8	18,111
1983	74	20,564	980.1	17,246
1984	74	24,751	979.1	19,406
1985	74	24,799	882.1	19,908
1986	74	24,865	882.1	19,680
1987	76	24,909	883.6	20,068
1988	76	24,853	884.9	18,488
1989	77	24,877	887.6	17,270
ISLANDS: 1988				
Hawaii	19	1,379.4	281.6	5,088
Maui	12	320.6	55.8	2,428
Molokai	1	233.7	10.0	188
Oahu	33	9,131.0	394.5	4,007
Kauai	11	13,787.8	143.0	6,777
ISLANDS: 1989				
Hawaii	20	1,382.5	281.6	4,134
Maui	12	341.4	56.0	2,489
Molokai	1	233.7	10.0	43
Oahu	33	9,131.0	397.0	3,404
Kauai	11	13,788.0	143.0	7,200

Source: Hawaii State Department of Land and Natural Resources, Division of State Parks, Outdoor Recreation and Historic Sites, records.

Table 224.-- MAJOR STATE PARKS: 1988 AND 1989

[Parks having at least 700,000 recreation visits or 1,000 acres]

Park	Acreage, June 30		Recreation visits, year ended June 30 (1,000)
	Total	Developed	
1988			
Wailua River State Park 1/	1,125.9	50.4	2,599
Hapuna Beach State Recreation Area ...	68.8	20.7	1,246
Nuuanu Pali State Wayside	3.0	3.0	1,008
Kokee State Park	4,345.0	55.0	935
Waimea Canyon State Park	1,866.4	10.0	912
Wailuku River State Park	16.3	3.5	849
Na Pali Coast State Park	6,175.0	4.0	90
Kahana Valley State Park	5,220.3	20.0	18
Sacred Falls State Park	1,374.2	10.0	17
1989			
Wailua River State Park 1/	1,125.9	50.4	3,248
Waimea Canyon State Park	1,866.4	10.0	1,257
Hapuna Beach State Recreation Area ...	68.8	20.7	1,032
Haena State Park	65.7	2.0	937
Kokee State Park	4,345.0	55.0	916
Wailuku River State Park	16.3	3.5	721
Na Pali Coast State Park	6,175.0	4.0	92
Kahana Valley State Park	5,220.3	20.0	28
Sacred Falls State Park	1,374.2	10.0	15

1/ Seven separate areas in both 1988 and 1989.

Source: Hawaii State Department of Land and Natural Resources, Division of State Parks, Outdoor Recreation, and Historic Sites, records.

Table 225.-- NATIONAL AND STATE HISTORIC SITES, BY ISLANDS: 1985

Island	Total sites 1/	Listed Hawaii Register only	Listed and recommended for National Register 2/	Listed National Register only	Listed both Hawaii and National Register	Eligible for Nat'l Register 3/
State total	376	90	40	92	119	37
Hawaii	87	36	2	18	23	9
Kauai	45	12	4	5	19	5
Kahoolawe .	1	-	-	1	-	-
Lanai	1	-	-	1	-	-
Maui	34	19	1	5	8	1
Molokai ...	55	14	14	2	24	2
Oahu	153	9	19	60	45	20

1/ Total sites listed in the source, as adjusted for appearance of some sites on more than one list.

2/ Sites placed on the Hawaii Register of Historic Places by the Historic Places Review Board but not yet approved by either the State Historical Preservation Officer or the National Historical Places Review Board.

3/ Sites declared eligible for National Register listing by the National Board.

Source: Hawaii State Department of Land and Natural Resources, State Parks, Outdoor Recreation, and Historic Sites Division, Hawaii Historic Places Review Board, Hawai'i/National Registers of Historic Places (February 1985).

Table 226.-- COUNTY PARKS, BY ISLANDS: 1983 TO 1988

[As of December 31]

Subject	1983	1984	1985	1986	1987	1988
Number, total	547	551	551	560	561	569
Hawaii	135	135	134	141	141	142
Maui	79	80	80	82	83	85
Lanai	3	3	3	3	3	4
Molokai	10	11	11	11	12	13
Oahu	264	266	266	266	265	266
Kauai	56	56	57	57	57	59
Acreage, total	8,238	8,248	8,222	8,227	8,324	8,336
Hawaii	1,460	1,463	1,434	1,424	1,428	1,430
Maui	899	899	899	905	917	926
Lanai	7	7	7	7	7	15
Molokai	51	54	54	54	58	73
Oahu	5,238	5,242	5,242	5,251	5,328	5,356
Kauai	583	583	586	586	586	536

Source: Compiled by the Hawaii State Department of Business and Economic Development from data provided by County parks and recreation departments.

Table 227.-- ZOOS: 1986 TO 1988

Subject and zoo	1986	1987	1988
Species: 1/			
Coco Palms (Kauai)	8	16	16
Honolulu Zoo	289	223	222
Maui Zoological & Botanical Gardens .	38	56	33
Molokai Ranch Wildlife Park	7	8	10
Panaewa Rainforest Zoo (Hilo)	53	54	53
Individuals: 1/			
Coco Palms (Kauai)	68	57	55
Honolulu Zoo	1,037	852	877
Maui Zoological & Botanical Gardens .	147	163	157
Molokai Ranch Wildlife Park	855	933	806
Panaewa Rainforest Zoo (Hilo)	160	171	175
Attendance:			
Coco Palms (Kauai)	6,142	6,142	6,142
Honolulu Zoo	801,418	758,485	875,825
Maui Zoological & Botanical Gardens .	80,000	80,000	67,000
Molokai Ranch Wildlife Park 2/	8,029	4,812	5,919
Panaewa Rainforest Zoo (Hilo)	53,212	67,170	69,814

1/ Animal and bird inventory, December 31.

2/ Decline in 1987 due to closing the park for maintenance and repairs.

Source: Data obtained by Hawaii State Department of Business and Economic Development from Coco Palms Resort Hotel, Molokai Ranch Wildlife Park, and the parks and recreation departments of the City and County of Honolulu and Counties of Hawaii and Maui.

Table 228.-- ATTENDANCE AND WATER SAFETY AT GUARDED BEACH PARKS, FOR THE CITY AND COUNTY OF HONOLULU: 1989

[Year ended June 30]

Beach park	Attendance 1/	Rescues	First aid		Drownings	Surfing accidents
			Minor	Major		
All parks	21,053,434	705	46,573	724	6	290
Ala Moana	2,351,476	51	4,533	68	1	26
Waikiki	11,299,007	147	17,145	283	1	112
Hanauma	2,856,665	141	17,674	92	2	1
Sandy	451,332	74	930	76	-	52
Makapuu	250,336	74	732	16	-	11
Bellows	91,648	2	768	5	-	0
Kailua	333,631	4	681	8	-	1
Kualoa	54,288	2	190	2	-	0
Sunset	338,060	26	83	9	-	6
Ehukai	207,449	24	179	26	-	19
Ke waena	157,863	7	218	9	-	6
Waimea	1,321,912	71	1,661	53	-	18
Alii	217,280	29	208	13	1	6
Nanakuli	274,394	20	563	17	-	14
Maili	87,098	18	111	8	-	2
Pokai	430,084	6	683	21	1	4
Makaha	330,911	9	214	18	-	12

1/ Based on headcounts taken at approximately two-hour intervals by Water Safety Officers over an 8-hour work day.

Source: City and County of Honolulu, Department of Parks and Recreation, Water Safety Division, records.

Table 229.-- COUNTY TENNIS FACILITIES: 1987 AND 1988

[As of December 31]

Subject	State total	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai
Locations:							
1987	90	20	12	1	1	46	10
1988	89	20	11	1	1	46	10
Courts:							
1987	278	44	34	2	2	172	24
1988	278	44	32	2	2	174	24

Source: Compiled by the Hawaii State Department of Business and Economic Development from the County parks and recreation departments.

Table 230.-- COUNTY GOLF COURSES AND CAMPING PERMITS, FOR OAHU: 1983 TO 1988

Calendar year	Public golf courses			Camping permits issued 1/
	Courses	Holes	Rounds played	
1983	4	63	494,610	7,462
1984	4	63	484,691	8,062
1985	4	63	484,594	6,937
1986	4	63	536,204	8,049
1987	4	63	548,668	8,352
1988	4	63	545,547	8,261

1/ By the City and County of Honolulu.

Source: City and County of Honolulu, Department of Parks and Recreation, records.

Table 231.-- GOLF COURSES, BY NUMBER OF HOLES, OWNERSHIP, AND ISLANDS: JANUARY 1989

Status, island, and ownership	Number of golf courses					Number of holes
	Total	9-hole	18-hole	27-hole	36-hole	
State total ...	56	11	43	1	1	936
Hawaii	11	2	8	1	-	189
Municipal	1	-	1	-	-	18
Private	10	2	7	1	-	171
Maui	10	1	9	-	-	171
Municipal	1	-	1	-	-	18
Private	9	1	8	-	-	153
Lanai	1	1	-	-	-	9
Private	1	1	-	-	-	9
Molokai	2	1	1	-	-	27
Private	2	1	1	-	-	27
Oahu	28	5	23	-	-	459
Military	9	3	6	-	-	135
Municipal	4	1	3	-	-	63
Private	15	1	14	-	-	261
Kauai	4	1	2	-	1	81
Municipal	1	-	1	-	-	18
Private	3	1	1	-	1	63

Source: Compiled by Hawaii State Department of Business and Economic Development from county departments of parks and recreation.

Table 232.-- HAWAIIAN OPEN SCORES AND PURSES: 1984 TO 1989

[The Hawaiian Open is held at the Waialae Country Club golf course. Distance is 6,975 yards; par is 72. For annual data back to 1965, see Data Book 1986, table 247]

Year	Holes	Winning score		Purse (dollars)	
		Total	Below par	Total	Winner
1984	72	*271	17	500,000	90,000
1985	72	267	21	500,000	90,000
1986	72	272	16	500,000	90,000
1987	72	*270	18	600,000	108,000
1988	72	271	17	600,000	108,000
1989 1/	54	197	19	750,000	135,000

* Sudden-death playoff.

1/ Reduced to 54 holes because of rain delays.

Source: Sunday Star-Bulletin and Advertiser, February 1, 1987, p. D-13; Honolulu Advertiser, February 9, 1987, p. F-1, February 15, 1988, p. C-1, and February 13, 1989, pp. C-1 and C-4.

Table 233.-- FISHING AND HUNTING LICENSES ISSUED: 1984 TO 1989

[Years ended June 30]

Type of license	1984	1985	1986	1987	1988	1989
Freshwater game fishing ..	9,866	7,131	8,200	8,669	10,512	9,565
Hunting	12,107	12,599	12,776	12,748	13,469	12,714

Source: Hawaii State Department of Land and Natural Resources, Division of Conservation and Resources Enforcement, records.

Table 234.-- PUBLIC HUNTING AREAS AND WILDLIFE SANCTUARIES AND REFUGES, BY ISLANDS: FEBRUARY 1989

Island	Public hunting areas		National Wildlife Refuges 1/		Other wildlife sanctuaries and refuges	
	Number	1,000 acres	Number	1,000 acres	Number	1,000 acres
State total	59	1,024.2	7	271.0	11	80.6
Hawaii	26	727.9	1	15.0	4	79.5
Maui	7	102.5	-	-	2	0.1
Lanai	1	35.6	-	-	-	-
Molokai	3	27.5	1	0.0	-	-
Oahu	11	24.0	2	0.2	5	0.7
Kauai	11	106.7	3	1.2	-	-
Other islands	-	-	1	254.6	(2/)	0.3

1/ U.S. Fish and Wildlife Service.

2/ The Hawaii State Seabird Sanctuary is comprised of 36 islets offshore all major islands, including Kure Atoll in the Northwestern Hawaiian Islands. This sanctuary is administered out of the Oahu District office.

Source: Hawaii State Department of Land and Natural Resources, Division of Forestry and Wildlife, records.

Table 235.-- WATER RECREATION FACILITIES AND RESOURCES, BY ISLANDS: 1988

Island	Small craft mooring facilities capacity 1/		Miles of sandy shoreline 2/		Number of surfing sites 3/
	Catwalks and piers	Other mooring areas	Total	Primary 4/	
Six major islands .	1,388	612	184.9	24.4	1,600
Hawaii	29	234	19.4	1.2	185
Maui	53	146	32.6	7.9	212
Lanai	28	-	18.2	-	99
Molokai	3	29	23.2	-	180
Oahu	1,193	167	50.3	12.5	594
Kauai	82	36	41.2	2.8	330

1/ As of December 31, 1988. At that time, 1,715 vessels were moored, vacancies numbered 273, and there were 2,088 valid applications on file.

2/ Surveyed in 1962.

3/ Surveyed in 1971. A surfing site is defined as "a specific wave-breaking zone caused by a shoal and having sufficient consistency to be identified as a surfable riding area, either seasonally or in a combination of seasons, e.g., Queen's Surf, Waikiki."

4/ Safe, clean, accessible, and generally suitable for swimming.

Source: Hawaii State Department of Transportation, Harbors Division, Small Craft Mooring Facilities Utilization Report (quarterly); Hawaii State Department of Planning and Economic Development, Hawaii's Shoreline (1965), p. 7; Surfing Education Association, The 1971 Statewide Surfing Site Survey, Vol. 1, p. 93.

Table 236.-- TRANSPACIFIC YACHT CLUB'S HONOLULU RACE ENTRIES AND WINNING TIMES: 1979 TO 1989

[The Honolulu Race, sponsored by the Transpacific Yacht Club of Los Angeles, is run biennially between San Pedro, California, and Diamond Head Lighthouse, a great circle distance of 2,217 nautical miles]

Year	Boats entered	Winning times (days, hours, minutes, seconds)	
		Elapsed	Corrected
1979	80	11:18:01:04	11:14:42:51
1981	70	8:11:02:31	7:21:44:48
1983 1/ ...	66	9:01:53:48	7:22:55:15
1985	65	13:06:31:19	9:14:07:40
1987	55	8:12:00:40	8:00:56:41
1989	45	8:12:50:35	8:02:54:08

1/ A catamaran, not officially entered in the race, recorded an elapsed time of 7:7:30:56.

Source: Jack Smock, Transpac, A History of the Great Race to Honolulu ... (1980), pp. 552 and 669; The Transpacific Yacht Club, 1982-83 Transpacific Yacht Club Year Book (1983); Honolulu Advertiser, July 12, 1983, p. B-1, July 4, 1985, p. E-3, July 19, 1985, p. G-3, and July 10, 1989, p. C-1; Honolulu Star-Bulletin, July 15, 1983, p. C-3; Sunday Star-Bulletin and Advertiser, July 10, 1983, p. F-1; Waikiki Yacht Club, records.

Table 237.-- HAWAIIAN CANOE RACING EXPENDITURES: 1986

[$1,000]

Type of expenditure	Amount
Total expenditure	3,874
Long-distance races	614
Regattas	2,590
Equipment	670

Source: Mike Markrich, Outrigger Canoe Racing in Hawaii: Its Economic Impact (University of Hawaii Sea Grant College Program and Department of Business and Economic Development, Ocean Resources Branch, July 1988), p. 31.

Table 238.-- SURFING COMPETITION EXPENDITURES: 1986

[Dollars]

Kind of event	Total	Direct	Indirect
All events	4,246,818	2,440,700	1,806,118
Boardsurfing	2,318,202	1,332,300	985,902
Windsurfing	1,902,516	1,093,400	809,116
Bodysurfing	26,100	15,000	11,100

Source: Mike Markrich, Economic Effects of Surfing Activities in Hawaii (University of Hawaii Sea Grant College Program and Department of Business and Economic Development, Ocean Resources Branch, December 1988), p. 19.

Table 239.-- IRONMAN TRIATHLON WORLD CHAMPIONSHIP REGISTRANTS, FINISHERS, AND WINNING TIMES: 1978 TO 1989

Year	Number of registrants	Number of finishers	Winning time (hr., min., sec.)	
			Men	Women
1978	15	12	11:46:58	--
1979	15	12	11:15:56	12:55:38
1980	108	94	9:24:33	11:21:24
1981	326	299	9:38:29	12:00:32
1982 (Feb.) ..	580	541	9:19:41	11:09:40
1982 (Oct.) ..	850	775	9:08:23	10:54:08
1983	964	838	9:05:57	10:43:36
1984	1,036	903	8:54:20	10:25:13
1985	1,018	965	8:50:54	10:25:22
1986	1,039	951	8:28:37	9:49:14
1987	1,381	1,286	8:34:13	9:35:25
1988	1,277	1,189	8:31:00	9:01:01
1989	1,286	1,231	8:09:15	9:00:56

Source: McNeil Wilson Communications for Bud Light Ironman Triathlon World Championship, records.

Table 240.-- HONOLULU MARATHON REGISTRANTS, FINISHERS AND WINNING TIMES: 1984 TO 1989

Year	Number of registrants	Number of finishers	Winning time (hr., min., sec.)	
			Men	Women
1984	10,653	8,166	2:16:25	2:42:49
1985	9,310	8,287	2:12:08	2:35:51
1986	10,354	8,563	2:11:43	2:31:01
1987	10,413	8,793	2:18:26	2:35:11
1988	10,205	8,808	2:12:47	2:41:52
1989	10,814	9,673	2:11:47	2:31:50

Source: Honolulu Marathon Association, records.

Table 241.-- TOTAL ATTENDANCE AT FOOTBALL BOWL GAMES: 1983-1984 TO 1988-1989 SEASONS

Bowl	1983-1984	1984-1985	1985-1986	1986-1987	1987-1988	1988-1989
Aloha Bowl	34,728	37,996	30,574	20,666	20,093	18,967
Hula Bowl	26,829	25,890	20,943	15,774	26,737	28,896
Pro Bowl	47,482	48,124	47,906	46,799	46,692	46,464

Source: Hawaii State Department of Accounting and General Services, Stadium Authority, records.

Table 242.-- VARSITY SPORTS SUMMARY FOR THE UNIVERSITY OF HAWAII AT MANOA: 1988-1989

[Includes only games played against four-year collegiate teams]

Sports	Games played 1/				Home games	
	Total	Won	Lost	Tied	Home dates	Attendance
Baseball	67	40	27	-	45	123,330
Basketball (men's)	30	17	13	-	15	60,673
Basketball (women's) ..	28	18	10	-	15	3,541
Football	12	9	3	-	9	401,864
Volleyball (men's)	29	22	7	-	10	14,022
Volleyball (women's) ..	36	33	3	-	20	37,970

1/ Volleyball data refer to matches.

Source: University of Hawaii, Office of Intercollegiate Athletics, Sports Information Office, records.

Table 243.-- PUBLIC HIGH SCHOOL INTERSCHOLASTIC SPORTS: 1988-1989 SEASON

Sport	Players	Games 1/	Attendance	Expenditure 2/ (dollars)
Baseball ..	Boys	364	66,429	243,688
Basketball	Boys and girls	886	134,053	481,274
Football ..	Boys	258	378,658	720,330

1/ Junior varsity and varsity games, based on published schedules from public school leagues. Data exclude pre-season and post-season games.

2/ Data on expenditures and encumbrances reflect figures from the general and school trust funds.

Source: Hawaii State Department of Education, Office of Instructional Services, Athletics Program, records.

Table 244.-- BOWLING ESTABLISHMENTS (SIC 7933): 1982

[Includes only establishments with payroll]

Subject	Number	Source of receipts from customers	Amount ($1,000)
Establishments	18	Receipts, total	8,069
Lanes operated, Dec. 31	389	Bowling	6,545
Per establishment	22	Sales of food, refreshments. and alcoholic beverages ..	788
Paid lines bowled (1,000)	6,052	Other sources	736

Source: U.S. Bureau of the Census, 1982 Census of Service Industries, Miscellaneous Subjects, SC82-I-5 (December 1985), table 22.

Table 245.-- PROFESSIONAL BOXING: 1983 TO 1988

Year	Number of promoters	Number of shows	Paid attendance	Gross receipts (dollars)
1983 ...	3	12	22,178	200,148.50
1984 ...	1	9	14,937	156,260.00
1985 ...	1	9	18,278	201,852.00
1986 ...	2	6	7,181	67,105.00
1987 ...	1	2	1,152	15,560.00
1988 ...	-	-	-	-

Source: Hawaii State Department of Commerce and Consumer Affairs, Boxing Commission, records.

Table 246.-- DOG LICENSES ISSUED, BY ISLANDS: 1983 TO 1988

[Dogs are licensed on a biennial basis]

Year	State total	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai
1983	41,566	3,397	3,454	98	203	33,597	817
1984	19,661	1,974	1,372	38	119	15,832	326
1985	33,598	2,809	2,171	35	111	27,654	818
1986	18,713	2,078	1,204	12	39	15,151	229
1987	28,208	3,287	1,633	35	65	22,573	615
1988	21,040	3,181	1,517	13	145	15,968	216

Source: Compiled by the Hawaii State Department of Business and Economic Development from the County Departments of Finance.

ELECTIONS

This section presents data on election districts, registered voters, votes cast, campaign expenditures, elected officials, and legislative activity.

About 444,000 persons were registered to vote in the general election of November 8, 1988, and more than 368,000 actually voted. The number voting amounted to 43 percent of the 824,000 Hawaii residents of voting age at that time. The latter figure included around 148,000 aliens, inmates of mental and penal institutions, and members of the armed forces and their dependents, groups that are either ineligible or unlikely to vote in Island elections. Among registered voters, females outnumbered males and Democrats were far more numerous than Republicans. Campaign expenditures for the 1988 primary and general elections (other than for federal offices) exceeded $10.8 million.

Hawaii has 2 Congressional, 25 Senatorial, 51 Representative, and 9 Councilmanic districts. It also contains 15 Soil Conservation districts, 30 active Neighborhood Board districts, and 289 election precincts.

Elected officials in Hawaii include the President and Vice President, two U.S. Senators, two U.S. Representatives, the Governor and Lieutenant Governor, 25 State Senators, 51 State Representatives, and various county officials. Persons of Hawaiian blood also vote for the Board of Trustees of the Office of Hawaiian Affairs. The minimum voting age is 18 years.

The 1989 State Legislature, with 76 members, included 58 males, 24 persons under 40 years of age, 28 persons of Japanese ancestry, 20 persons born in places other than Hawaii, and 66 Democrats.

In its 1989 session, the State Legislature considered 3,970 bills; 432 were passed and 397 became law. The Legislature also considered 1,355 resolutions, of which 547 were adopted.

The official results of primary, general, and special elections are published by the Office of the Lieutenant Governor. Additional information is often available from the various county clerks. Earlier figures for Hawaii appear in Historical Statistics of Hawaii, Section 24. National statistics appear in the Statistical Abstract of the United States: 1989, Section 8.

Table 247.-- ELECTION DISTRICTS AND POPULARLY ELECTED OFFICIALS: NOVEMBER 1986 AND 1988

Office	Election districts		Officials to be elected 1/		Total elected officials, including holdover	
	1986	1988	1986	1988	1986	1988
Federal offices:						
President and Vice President	...	...	-	2	2	2
U.S. Senate	...	...	1	1	2	2
U.S. House of Representatives	2	2	2	2	2	2
State offices:						
Governor and Lt. Governor	...	...	2	-	2	2
State Senate	25	25	12	15	25	25
State House of Representatives	51	51	51	51	51	51
Board of Education	2	2	6	8	13	13
Office of Hawaiian Affairs	...	...	5	4	9	9
Soil and water conservation dist. 2/	15	15	...	...	45	45
County offices:						
Mayor	...	...	2	3	4	4
Council:						
Hawaii	...	...	-	9	9	9
Maui	...	...	9	9	9	9
Honolulu	9	9	9	3	9	9
Kauai	...	...	7	7	7	7
Prosecuting Attorney	...	...	-	3	3	3
Neighborhood Boards 3/	30	30	-	-	438	438
Precincts	284	289	-	-	-	-

1/ Including vacancies to be filled.

2/ Three seats are elected and two are appointed for each district. Elections are an ongoing process.

3/ Elections are conducted every other year in odd-numbered years.

Source: Office of the Lieutenant Governor, July 14, 1988.

Table 248.-- POPULATION OF VOTING AGE AND PERCENT VOTING: 1960 TO 1988

[As of November. Resident population 20 years old and over through 1970 and 18 years and over in 1972 and later years. Includes armed forces stationed in Hawaii]

Year	Persons of voting age	Percent casting votes	
		For Presidential Electors	For U.S. Representatives
1960	371,000	49.7	49.2
1962	390,000	(X)	49.9
1964	404,000	51.3	56.9
1966	417,000	(X)	49.9
1968	439,000	53.8	55.3
1970	473,000	(X)	44.0
1972	547,000	49.4	50.3
1974	586,000	(X)	44.3
1976	624,000	46.7	47.0
1978	657,000	(X)	38.6
1980	697,000	43.5	40.2
1982	729,000	(X)	40.9
1984	758,000	44.3	36.4
1986	784,000	(X)	42.2
1988	824,000	43.0	41.2

X Not applicable.

Source: U.S. Bureau of the Census, "Projections of the Population of Voting Age for States: November 1980," Current Population Reports, Series P-25, No. 879, March 1980; "Projections of the Population of Voting Age for States: November 1982," Current Population Reports, Series P-25, No. 916, July 1982; "Projections of the Population of Voting Age for States: November 1988," Current Population Reports, Series P-25, No. 1019, January 1988; Statistical Abstract of the United States: 1989, p. 259.

Table 249.-- POPULATION ELIGIBLE AND INELIGIBLE TO VOTE: NOVEMBER 1988

[In thousands]

Group	All ages	Under 18 years	18 years and over		
			Total	Eligible	Ineligible
Total 1/	1,104	280	824	2/ 676	148
Aliens 3/	75	13	62	-	62
Armed forces 4/	57	-	57	2	55
Military dependents 4/ ..	70	40	30	1	29
All others 5/	902	227	675	673	2

1/ Total extrapolated from present report, table 2; 18 and over from present report, table 264.

2/ Of the 676,000 persons eligible to vote in the election of November 1988, 65.6 percent were registered and 54.5 percent cast ballots.

3/ From 1980 Census of Population, PC80-1-D13, table 194.

4/ Total from present report, table 2; age distribution from 1980 data in DPED Statistical Report 163, table 4; eligibility from 1983 survey in Data Book 1984, table 416.

5/ Total and age distribution by subtraction; eligibility breakdown allows for institutionalized felons and mental patients, from Data Book 1988, tables 79 and 134.

Source: Estimated by Hawaii State Department of Business and Economic Development from sources cited in above footnotes.

Table 250.-- PERCENT OF CIVILIAN POPULATION REGISTERED OR VOTING IN ELECTIONS, 1986 AND 1988, AND BY COUNTIES, 1988

[Based on July 1 estimates of civilian population, including military dependents, aliens, and persons under 18 years of age]

Election	The State		Counties: 1988			
	1986	1988	Hawaii	Maui	Honolulu	Kauai
Registered:						
Primary	39.6	40.3	42.2	40.0	39.4	50.0
General	41.7	42.6	44.5	43.5	41.6	51.8
Voting:						
Primary	28.0	26.5	28.0	22.6	25.8	41.5
General	34.3	35.4	37.6	35.0	34.6	43.9

Source: Office of the Lieutenant Governor, Result of Votes Cast for each election; Department of Business and Economic Development, unpublished estimates of civilian population by counties.

Table 251.-- REPORTED VOTING AND REGISTRATION, BY SEX: NOVEMBER 1988

[Number 18 and over in thousands. Percentages based on a sample]

Sex and race	Civilians 18 years old and over	Reported registered		Reported voted	
		Percent	Standard error	Percent	Standard error
Total	745	61.0	1.9	54.8	1.9
Male	335	60.3	2.8	55.5	2.9
Female	410	61.6	2.5	54.1	2.6
White	238	63.4	3.3	55.1	3.4

Source: U.S. Bureau of the Census, "Voting and Registration in the Election of November 1988 (Advance Report)," Current Population Reports, Population Characteristics, Series P-20, No. 435, February 1989, p. 7.

Table 252.-- REGISTERED VOTERS AND VOTES CAST IN PRIMARY AND GENERAL ELECTIONS: 1970 TO 1988

Type and date of election	Registered voters			Votes cast	
	Both sexes	Male	Female	Number	Percent of reg. voters
Primary elections:					
1970: Oct. 3	282,470	(NA)	(NA)	202,401	71.7
1972: Oct. 7	326,906	(NA)	(NA)	203,160	62.1
1974: Oct. 5	333,527	(NA)	(NA)	235,982	70.8
1976: Oct. 2	353,249	175,276	177,973	251,457	71.2
1978: Oct. 7	387,673	190,796	196,877	289,029	74.6
1980: Sept. 20 ...	384,858	186,982	197,876	264,041	68.6
1982: Sept. 18 ...	385,307	185,763	199,544	272,691	70.8
1984: Sept. 22 ...	398,858	190,525	208,333	221,957	55.6
1986: Sept. 20 ...	398,197	189,655	208,542	281,352	70.7
1988: Sept. 17 1/	419,441	199,440	220,001	275,673	65.7
General elections:					
1970: Nov. 3	291,681	146,630	145,051	247,740	84.9
1972: Nov. 7	337,837	169,896	167,941	286,593	84.8
1974: Nov. 5	343,404	171,072	172,332	272,545	79.4
1976: Nov. 2	363,045	180,265	182,780	309,025	85.1
1978: Nov. 7	395,262	194,412	200,850	292,690	74.0
1980: Nov. 4	402,795	195,804	206,991	318,026	79.0
1982: Nov. 2	405,005	195,259	209,746	325,459	80.4
1984: Nov. 6	418,904	200,424	218,480	349,253	83.4
1986: Nov. 4	419,794	200,233	219,561	344,416	82.0
1988: Nov. 8	443,742	211,539	232,203	368,567	83.0

NA Not available.

1/ Distribution by sex estimated from tabulation made September 1, 1988 (see table 253, footnote 1).

Source: Office of the Lieutenant Governor, Result of Votes Cast for each election, and records.

Table 253.-- REGISTERED VOTERS AND VOTES CAST IN PRIMARY AND GENERAL ELECTIONS, BY COUNTIES: 1988

[Excludes persons registered for only the Office of Hawaiian Affairs election but not for the regular primary or general elections]

Election and county	Registered voters 1/			Votes cast	
	Both sexes	Male	Female	Number	Percent of reg. voters
PRIMARY ELECTION					
State total ..	419,441	199,440	220,001	275,673	65.7
Hawaii	49,510	23,805	25,705	32,921	66.5
Maui	37,196	17,784	19,412	20,994	56.4
Honolulu	308,140	145,768	162,372	201,358	65.3
Kauai	24,595	12,083	12,512	20,400	82.9
GENERAL ELECTION					
State total ..	443,742	211,539	232,203	368,566	83.1
Hawaii	52,221	25,177	27,044	44,195	84.6
Maui	40,436	19,395	21,041	32,534	80.5
Honolulu	325,614	154,451	171,163	270,222	83.0
Kauai	25,471	12,516	12,955	21,615	84.9

1/ Distribution by sex for the primary election estimated from tabulation made September 1, 1988, 16 days before the election. The September 1 count reported 199,643 males and 220,225 females.

Source: Office of the Lieutenant Governor, Results of Votes Cast, Primary Election ... 1988, Results of Votes Cast, General Election ... 1988, and records.

Table 254.-- PARTY OF VOTES CAST IN PRIMARY ELECTIONS: 1978 TO 1988

Primary election	Total votes cast	Demo- cratic	Repub- lican	Other par- ties	Non- parti- san	Inval- idated	Blank
1978	289,029	262,531	25,642	211	548	-	97
1980	264,041	250,226	10,628	1,089	1,881	217	-
1982	272,691	245,426	13,262	12,681	1,013	309	-
1984	221,957	177,102	43,306	695	455	399	-
1986	281,352	235,559	44,304	-	1,023	466	-
1988	275,653	221,349	50,923	563	1,340	1,180	298

Source: Office of the Lieutenant Governor, Results of Votes Cast, Primary Election for years shown, and records.

Table 255.-- PARTY OF VOTES CAST IN PRIMARY ELECTION, BY COUNTIES: SEPTEMBER 17, 1988

Party	State total	Hawaii County	Maui County	City and County of Honolulu	Kauai County
Total votes cast	275,653	32,921	20,994	201,338	20,400
Democratic	221,349	27,540	16,443	157,850	19,516
Libertarian	563	61	78	406	18
Republican	50,923	5,099	4,379	40,762	683
Non-partisan	1,340	120	-	1,173	47
Invalidated	1,180	101	82	910	87
Blank	298	-	12	237	49

Source: Office of the Lieutenant Governor, Results of Votes Cast, Primary Election ... 1988.

Table 256.-- VOTES CAST FOR CANDIDATES FOR MAJOR OFFICES: PRIMARY ELECTION, SEPTEMBER 17, 1988

Office, party, and candidate	Votes
U.S. SENATOR	
Democrat:	
Spark Matsunaga	180,853
Bob Zimmerman	27,360
Republican:	
Maria Hustace	18,124
Leonard Mednick	13,590
Susanne Sydney	5,526
Libertarian:	
Ken Schoolland	367
REPRESENTATIVE TO CONGRESS, DISTRICT 1	
Democrat:	
Mary Bitterman	51,942
Leigh-Wai Doo	35,579
John Radcliffe	15,258
Republican:	
Patricia Saiki	23,132
Libertarian:	
Blase Harris	166
REPRESENTATIVE TO CONGRESS, DISTRICT 2	
Democrat:	
Daniel K. Akaka	94,302
Libertarian:	
Lloyd J. Mallan	188
MAYOR OF HONOLULU	
Democrat:	
Marilyn R. Bornhorst	57,097
Patsy T. Mink	48,771
Randall Y. Iwase	22,906
Dennis O'Connor	21,585
Jerry Souza	3,469
Republican:	
Frank F. Fasi	36,608
Gordon A. Nelson	1,167
Charles Y. Hirayasu	1,035
Non-partisan:	
Michael J. Mixell	576
Antrinik Toorinjian	219

Continued on next page.

Table 256.-- VOTES CAST FOR CANDIDATES FOR MAJOR OFFICES:
PRIMARY ELECTIONS, SEPTEMBER 17, 1988 -- Con.

Office, party, and candidate	Votes
MAYOR OF HAWAII COUNTY	
Democrat:	
Dante K. Carpenter	16,467
Paul Snider	6,320
Republican:	
Bernard K. Akana	2,366
Roger Evans	988
Stuart T. Gregory	429
Non-partisan:	
Kiko Johnston-Kitazawa	103
MAYOR OF KAUAI COUNTY	
Democratic:	
JoAnn Yukimura	12,215
Tony T. Kunimura	6,910
Republican:	
Raymond X. Aki	505
John Sousa	94
Non-partisan:	
Gregory Goodwin	33

Source: Office of the Lieutenant Governor, _Results of Votes Cast, Primary Election ... 1988_.

Table 257.-- NUMBER OF PRECINCTS, REGISTERED VOTERS, AND VOTES CAST, BY ISLANDS: NOVEMBER 8, 1988

Island	Number of precincts	Registered voters	Votes cast
State total	289	443,742	368,567
Hawaii	51	52,221	44,195
Maui	31	36,668	29,945
Lanai	1	888	721
Molokai: Molokai District	4	2,782	1,792
Kalawao District	1	98	76
Oahu 1/	183	325,614	270,223
Kauai	17	25,338	21,562
Niihau	1	133	53

1/ Including the Northwestern Hawaiian Islands, part of the 5th Precinct of the 20th Representative District, in Waimanalo, Oahu.

Source: Office of the Lieutenant Governor, printouts.

Table 258.-- AGE AND SEX OF REGISTERED VOTERS: NOVEMBER 8, 1988

Age	Both sexes	Male	Female
All ages	443,742	211,539	232,203
18 or 19 years	11,508	5,169	6,339
20 to 29 years	71,159	31,952	39,207
30 to 39 years	100,760	46,899	53,861
40 to 49 years	85,239	40,890	44,349
50 to 64 years	97,983	46,057	51,326
65 years and over	77,067	39,967	37,100
Not reported	26	5	21

Source: Office of the City Clerk, City and County of Honolulu, records.

Table 259.-- VOTES CAST FOR MAJOR OFFICES: GENERAL ELECTIONS, 1978 TO 1988

Office and election year	Total votes cast	Democrat		Republican		Other parties: votes
		Candidate	Votes	Candidate	Votes	
PRESIDENT						
1980	303,287	Carter	135,879	Reagan	130,112	37,296
1984	335,846	Mondale	147,154	Reagan	185,050	3,642
1988	354,461	Dukakis	192,364	Bush	158,625	3,472
U.S. SENATOR						
1980	288,006	Inouye, D. ..	224,485	Brown	53,068	10,453
1982	306,410	Matsunaga ...	245,386	Brown	52,071	8,953
1986	328,797	Inouye, D. ..	241,887	Hutchinson .	86,910	-
1988	323,876	Matsunaga ...	247,941	Hustace	66,987	8,948
REPRESENTATIVE TO CONGRESS, DISTRICT 1						
1978	115,412	Heftel	84,552	Spillane ...	24,470	6,390
1980	123,181	Heftel	98,256	Noble	19,819	5,106
1982	149,907	Heftel	134,779	None	-	15,128
1984	138,865	Heftel	114,884	Beard	20,608	3,373
1986 1/	168,377	Hannemann ...	63,061	Saiki	99,683	5,633
1988	177,020	Bitterman ...	76,394	Saiki	96,848	3,778
REPRESENTATIVE TO CONGRESS, DISTRICT 2						
1978	137,957	Akaka	118,272	Isaak	15,697	3,988
1980	157,380	Akaka	141,477	None	-	15,903
1982	148,008	Akaka	132,072	None	-	15,936
1984	136,741	Akaka	112,377	Shipley	20,000	4,364
1986	162,819	Akaka	123,830	Hustace	35,371	3,618
1988	162,808	Akaka	144,802	None	-	18,006
GOVERNOR						
1978	281,587	Ariyoshi	153,394	Leopold	124,610	3,583
1982	315,853	Ariyoshi	141,043	Anderson, D.	81,507	89,303
1986	334,115	Waihee	173,655	Anderson, D.	160,460	-

Continued on next page.

Table 259.-- VOTES CAST FOR MAJOR OFFICES: GENERAL ELECTIONS, 1978 TO 1988 -- Con.

Office and election year	Total votes cast	Democrat		Republican		Other parties: votes
		Candidate	Votes	Candidate	Votes	
MAYOR OF HONOLULU						
1980	219,408	Anderson, E.	152,240	Schweigert .	58,155	9,013
1984	253,853	Anderson, E.	117,841	Fasi	132,875	3,137
1988	263,882	Bornhorst ..	117,479	Fasi	146,403	-

1/ For special election to fill unexpired term of Rep. Heftel, Sept. 20, 1986, see Data Book 1987, table 280.

Source: Office of the Lieutenant Governor, Results of Votes Cast, General Election, State of Hawaii for 1978-1988.

Table 260.-- REGISTERED VOTERS AND VOTES CAST FOR THE BOARD OF TRUSTEES OF THE OFFICE OF HAWAIIAN AFFAIRS, BY COUNTIES: NOVEMBER 8, 1988

County	Registered voters			Votes cast	
	Both sexes	Male	Female	Number	Percent of reg. voters
State total	63,452	27,970	35,482	48,238	76.0
Hawaii	9,059	4,022	5,037	7,151	78.9
Maui	6,483	2,872	3,611	4,850	74.8
Honolulu	44,056	19,245	24,811	33,177	75.3
Kauai	3,854	1,831	2,023	3,060	79.4

Source: Office of the Lieutenant Governor, Results of Votes Cast, General Election ... 1988.

Table 261.-- VOTES CAST FOR MAJOR OFFICES, BY COUNTIES: GENERAL ELECTION, 1988

Office, candidate and party	State total	County of Hawaii	County of Maui	City and County of Honolulu	County of Kauai
PRESIDENT					
Dukakis/Bentsen (D) ...	192,364	24,091	17,532	138,971	11,770
Bush/Quayle (R)	158,625	17,125	12,944	120,258	8,298
Others	3,472	552	374	2,348	198
U. S. SENATOR					
Matsunaga (D)	247,941	30,270	21,461	179,819	16,391
Hustace (R)	66,987	8,868	6,911	48,781	2,427
Others	8,948	1,175	844	6,417	512
REPRESENTATIVE TO CONGRESS, DISTRICT 1					
Saiki (R)	96,848	-	-	96,848	-
Bitterman (D)	76,394	-	-	76,394	-
Others (L)	3,778	-	-	3,778	-
REPRESENTATIVE TO CONGRESS, DISTRICT 2					
Akaka (D)	144,802	33,983	24,673	68,773	17,373
Mallan (L)	18,006	4,242	3,002	9,568	1,194
MAYOR OF HONOLULU					
Fasi (R)	146,403	-	-	146,403	-
Bornhorst (D)	117,479	-	-	117,479	-
MAYOR OF HAWAII					
Akana (R)	19,886	19,886	-	-	-
Carpenter (D)	19,088	19,088	-	-	-
MAYOR OF KAUAI					
Yukimura (D)	15,193	-	-	-	15,193
Aki (R)	5,453	-	-	-	5,453

Source: Office of the Lieutenant Governor, Results of Votes Cast, General Election ... 1988.

Table 262.-- CAMPAIGN EXPENDITURES: 1988 ELECTIONS

[Dollars. January 1, 1988 through December 31, 1988]

Election and office	All candidates	Democrats	Republicans	All others
PRIMARY				
All races reported ..	6,605,523	5,112,213	1,197,532	295,778
State Senate	1,083,766	946,393	137,373	-
State Representative	1,417,022	1,186,896	230,098	28
Mayor	2,380,104	1,784,308	588,693	7,103
Prosecuting Attorney	298,611	12,007	-	286,604
Council Member	1,426,020	1,182,609	241,368	2,043
GENERAL				
All races reported ..	3,378,801	1,633,536	1,611,693	133,572
State Senate	515,022	325,465	189,557	-
State Representative	749,969	514,054	235,776	139
Mayor	1,706,393	578,406	1,127,987	-
Council Member	273,984	215,611	58,373	-
Board of Education	62,775	-	-	62,775
Office of Hawaiian Affairs	70,658	-	-	70,658
TOTAL 1/				
All races reported ..	10,815,765	7,196,336	3,156,800	462,629
State Senate	1,691,602	1,348,318	343,284	-
State Representative	2,384,950	1,859,430	525,353	167
Mayor	4,421,621	2,468,914	1,945,453	7,254
Prosecuting Attorney	334,751	16,972	-	317,779
Council Member	1,847,455	1,502,702	342,710	2,043
Board of Education	63,969	-	-	63,969
Office of Hawaiian Affairs	71,417	-	-	71,417

1/ Includes supplemental elections, not shown separately.
Source: Hawaii State Campaign Spending Commission, September 8, 1989.

Table 263.-- NEIGHBORHOOD BOARD ELECTIONS, FOR OAHU: 1981 TO 1989

Year	Number of boards		Board seats elected	Ballots mailed 1/	Voters 1/ (ballots cast)
	In operation, Dec. 31	Holding elections			
1981	28	28	416	294,735	48,745
1983	28	28	416	231,622	61,425
1985	30	30	438	255,045	74,583
1987	30	30	438	260,155	83,072
1989	30	30	438	273,954	91,285

1/ Revised from Data Book 1988, table 279.
Source: Neighborhood Commission, City and County of Honolulu, records.

Table 264.-- PARTY MEMBERSHIP OF COUNTY COUNCILS: 1987 AND 1989

[As of January]

County	Total seats	Democrats		Republicans		Other parties or vacant	
		1987	1989	1987	1989	1987	1989
All counties	34	29	31	5	3	-	-
Hawaii	9	7	9	2	-	-	-
Maui	9	7	8	2	1	-	-
Honolulu 1/	9	8	7	1	2	-	-
Kauai	7	7	7	-	-	-	-

Source: The Chamber of Commerce of Hawaii, Who's Who in Government, State of Hawaii, 1987-1988, pp. 32-39; respective County Council offices.

Table 265.-- LENGTH OF LEGISLATIVE SESSIONS: 1984 TO 1989

Year	Regular sessions		Special sessions	
	Date convened	Length 1/	Date convened	Length 1/
1984	Jan. 18	93	July 9	5
1985	Jan. 16	97	None	-
1986	Jan. 15	99	July 24	7
1987	Jan. 21	100	None	-
1988	Jan. 21	99	May 20	4
1989	Jan. 18	99	None	-

1/ Calendar days, including Saturdays, Sundays, holidays, and mandatory five-day recess required by Art. III, sec. 10, of the Hawaii Constitution.

Source: Legislative Reference Bureau, records.

Table 266.-- PARTY MEMBERSHIP OF THE STATE LEGISLATURE: 1979 TO 1989

Regular session	House of Representatives				Senate			
	Total	Democrats	Republicans	Other	Total	Democrats	Republicans	Other
1979 ..	51	42	9	-	25	18	7	-
1981 ..	51	39	12	-	25	17	8	-
1983 ..	51	43	8	-	25	20	5	-
1985 ..	51	40	11	-	25	21	4	-
1987 ..	51	40	11	-	25	20	5	-
1989 ..	51	45	6	-	25	22	3	-

Source: Session Laws of Hawaii, 1979-1987; President of the Senate; Speaker of the House of Representatives.

Table 267.-- COMPOSITION OF THE 1989 HAWAII STATE LEGISLATURE

Subject	House of Representatives			Senate		
	Total	Demo-crats	Repub-licans	Total	Demo-crats	Repub-licans
All members	51	45	6	25	21	4
Island of residence:						
Hawaii	6	5	1	3	3	-
Maui	4	4	-	2	1	1
Lanai	-	-	-	-	-	-
Molokai	-	-	-	-	-	-
Oahu	39	34	5	19	16	3
Kauai	2	2	-	1	1	-
Niihau	-	-	-	-	-	-
Year born:						
1928 or earlier	5	5	-	3	2	1
1929 to 1938	10	9	1	4	4	-
1939 to 1948	19	16	3	11	8	3
1949 to 1958	16	14	2	6	6	-
1959 or later	1	1	-	1	1	-
Sex:						
Male	40	35	5	18	16	2
Female	11	10	1	7	5	2
Ethnic stock:						
Caucasian, except Portuguese	11	9	2	6	4	2
Chinese	5	5	-	2	2	-
Filipino	4	4	-	1	1	-
Japanese	20	19	1	8	7	1
Portuguese	1	1	-	-	-	-
Other (unmixed) 1/ ..	-	-	-	-	-	-
Mixed: Part-Hawaiian	7	6	1	7	6	1
Mixed: Non-Hawaiian .	3	1	2	1	1	-
Place of birth:						
Hawaii	36	33	3	20	19	1
Mainland U.S.	11	8	3	5	3	2
U.S. terr. or poss. .	-	-	-	-	-	-
Foreign country	4	4	-	-	-	-

1/ Black, Hawaiian, Korean, Puerto Rican, Samoan, or other ethnic stock.

Source: Chamber of Commerce of Hawaii, Who's Who in Government, State of Hawaii, 1989-1990 (1989); Clerk of the Senate, records; Chief Clerk, House of Representatives, records.

Table 268.-- LEGISLATIVE BILLS AND RESOLUTIONS, BY DISPOSITION: 1988 AND 1989

Action	1988		1989: Regular
	Regular	Special	
House bills:			
Carried over from previous year	1,752	1	-
Introduced	1,660	-	1,923
Enacted 1/	204	1	206
Vetoed 2/............................	14	-	17
Became law	188	1	189
Senate bills:			
Carried over from previous year	1,542	1	-
Introduced	1,425	-	2,047
Enacted 1/, 3/	232	1	226
Vetoed 2/	14	-	18
Became law 3/	216	1	208
House resolutions:			
Offered	493	-	423
Adopted	260	-	235
House concurrent resolutions:			
Offered	392	-	397
Adopted	85	-	96
Senate resolutions:			
Offered	249	-	255
Adopted	128	-	139
Senate concurrent resolutions:			
Offered	248	-	280
Adopted	59	-	77

1/ Includes bills for constitution amendments: H.B. 2688, H.B. 3164, S.B. 2021, and S.B. 2718 in the 1988 regular session.

2/ The 1988 regular session total includes H.B. 2032 and S.B. 3264, which were returned by the Governor and passed by the Legislature during the 1988 special session.

3/ The 1989 figure includes S.B. 636, which contained one vetoed item.

Source: Legislative Reference Bureau, records.

Section 9

GOVERNMENT FINANCES AND EMPLOYMENT

This section presents statistics relating to the revenues, expenditures, debt, and civilian employment of Federal, State and county governments in Hawaii.

Local government is vested in one combined city-county (Honolulu, consisting of the Island of Oahu and several outlying islets), three non-metropolitan counties (Hawaii, Kauai, and Maui), and one area (Kalawao County) administered by the State Department of Health. Separate municipal governments do not exist.

Tax collections by Federal, State and county governments in fiscal 1988 reached \$5.8 billion, more than twice the level reported eight years earlier. The 1988 total included \$3.3 billion in U.S. taxes, \$2.0 billion in State taxes, and \$422 million in county taxes, licenses and fees. Individual income taxes accounted for 87 percent of Federal collections and 31 percent of State collections in Hawaii in 1988. State revenue receipts totaled \$3.1 billion, chiefly from the general excise and use tax (\$920 million), individual income tax (\$626 million) and Federal grants-in-aid (\$438 million). The largest expenditure item in the State accounts for 1988 was education, with \$886 million (out of \$3.0 billion) going to the University of Hawaii and public schools and libraries. The counties, in contrast, depended largely on the real property tax and grants-in-aid for their revenues, and reported police and fire protection as their largest single expenditure item. Assessed valuation of the State quadrupled between 1979 and 1989, reaching \$77 billion by the end of the period; of this total, \$19 billion was exempt from taxation. Public bonded debt outstanding at the end of 1988 stood at \$3.4 billion.

Total government employment in 1988 averaged 99,100, about 11 percent over the 1980 average. The 1988 total included 33,000 Federal workers, 52,000 persons employed by the State, and 14,000 persons on county payrolls. State civil service employees as of mid-1988 numbered 19,000.

Important sources for statistics on government in Hawaii include the U.S. Census of Governments and various annual publications of the Bureau of the Census, reports of the U.S. Treasury Department, Hawaii State Departments of Accounting and General Services, Budget and Finance, and Taxation, and the County auditors and finance directors, and an annual compilation issued by the Tax Foundation of Hawaii, Government in Hawaii: A Handbook of Financial Statistics. Data extending back to the middle of the 19th century are summarized in Historical Statistics of Hawaii, Section 25. Comparable Mainland statistics appear in the Statistical Abstract of the United States: 1989, Sections 9 and 10.

Table 269.-- FEDERAL, STATE, AND COUNTY TAX COLLECTIONS: 1970 TO 1988

[Thousands of dollars]

Year	All levels	Federal 1/	State and counties 2/		
			Total	State	Counties
1970	1,061,376	602,998	458,378	438,397	15,981
1971	1,105,657	608,051	497,606	480,690	16,916
1972	1,162,700	632,583	530,117	512,047	18,070
1973	1,327,150	735,358	591,792	571,689	20,104
1974	1,512,414	840,089	672,325	650,855	21,470
1975	1,852,801	1,087,520	765,281	743,923	21,358
1976	1,821,934	945,899	876,035	850,639	25,396
1977	2,038,318	1,106,687	931,631	905,949	25,682
1978 3/ .	2,228,780	1,208,481	1,020,299	986,182	34,117
1979	2,620,194	1,455,225	1,164,969	1,127,677	37,292
1980	2,966,218	1,670,459	1,295,669	1,255,622	40,047
1981	3,245,507	1,826,363	1,419,144	1,371,490	47,655
1982	3,314,106	1,876,628	1,437,478	1,132,699	304,779
1983	3,451,664	1,897,858	1,553,806	1,225,010	328,796
1984	3,655,283	1,980,467	1,674,816	1,331,551	343,265
1985	3,922,942	2,116,773	1,806,169	1,440,553	365,616
1986 3/ .	4,296,653	2,337,028	1,959,625	1,562,195	397,429
1987	4,997,831	2,809,135	2,188,696	1,776,430	412,266
1988	5,765,933	3,310,750	2,455,183	2,033,179	422,004

1/ Fiscal years ended June 30 through 1976 and September 30 thereafter.

2/ Fiscal years ended June 30. Totals include taxes collected from visitors and other nonresidents.

3/ Revised from *Data Book 1988*, table 285.

Source: Tax Foundation of Hawaii, *Government in Hawaii: A Handbook of Financial Statistics* (annual).

Table 270.-- TAX COLLECTIONS RELATIVE TO POPULATION AND PERSONAL INCOME, BY LEVEL OF GOVERNMENT: 1970 TO 1988

[Data include taxes collected in Hawaii from visitors and other nonresidents. Revised from Data Book 1988, table 286]

Year	Per capita collections 1/ (dollars)			Collections as a percent of personal income 2/		
	All levels	Federal 3/	State and counties 4/	All levels	Federal 3/	State and counties 4/
1970 ..	1,376	781	594	28.1	16.0	12.2
1971 ..	1,379	759	621	27.2	15.0	12.3
1972 ..	1,404	764	640	26.0	14.1	11.9
1973 ..	1,558	864	695	26.7	14.8	11.9
1974 ..	1,742	968	775	26.5	14.7	11.8
1975 ..	2,091	1,227	864	30.1	17.7	12.4
1976 ..	2,015	1,046	969	27.3	14.2	13.1
1977 ..	2,220	1,205	1,015	28.3	15.3	12.9
1978 ..	2,392	1,297	1,095	27.7	15.0	12.7
1979 ..	2,749	1,527	1,222	29.0	16.1	12.9
1980 ..	3,061	1,724	1,337	28.9	16.3	12.6
1981 ..	3,311	1,863	1,448	29.4	16.5	12.8
1982 ..	3,322	1,881	1,441	28.2	16.0	12.3
1983 ..	3,389	1,864	1,526	26.8	14.7	12.1
1984 ..	3,529	1,912	1,617	26.8	14.5	12.3
1985 ..	3,736	2,016	1,720	26.9	14.5	12.4
1986 ..	4,040	2,197	1,842	27.5	15.0	12.4
1987 ..	4,619	2,596	2,023	29.7	16.7	12.6
1988 ..	5,250	3,015	2,236	31.3	18.0	13.3

1/ Based on estimated resident population, July 1.
2/ Based on income estimates for calendar years.
3/ Collections data refer to fiscal years ended June 30 through 1976 and September 30 thereafter.
4/ Collection data refer to fiscal years ended June 30.

Source: Calculated from collections data in preceding table, population estimates in table 2, and income estimates in table 384.

Table 271.-- FEDERAL, STATE, AND COUNTY TAX COLLECTIONS, BY SOURCES: 1978, 1987, AND 1988

[In thousands of dollars. For fiscal year ended September 30 for federal collections and June 30 for others]

Source	1978	1987	1988
Total, all levels	2,228,780	4,997,831	5,765,933
Federal collections	1,208,481	2,809,135	3,310,750
Indiv. income and employment 1/ ..	1,024,630	2,462,058	2,870,314
Corp. income and excess profits ..	147,164	254,775	333,528
Excise	16,426	45,484	48,497
Estate	11,827	26,753	36,555
Gift	573	2,587	1,601
Unemployment insurance	7,861	17,478	20,255
State collections	986,182	1,776,430	2,033,179
General excise and use	367,660	817,949	920,232
Transient accommodations 2/	-	23,519	67,290
Fuel	46,113	73,296	85,190
Liquor	18,044	34,547	38,201
Tobacco	10,976	19,060	21,318
Insurance	15,744	35,949	38,009
Public service companies	33,401	61,792	63,587
Corporate income 3/	23,836	61,517	66,017
Indiv. income, net income 4/	227,216	542,689	626,009
Inheritance and estate	4,042	5,178	7,314
Unemployment compensation	73,706	76,056	77,010
Other sources 5/	165,443	24,878	23,002
County collections	34,117	412,266	422,004
Real property	-	346,171	353,880
Utility franchise	6,991	15,523	15,776
Motor vehicle weight 6/	20,920	35,619	39,311
Other sources	6,206	14,952	13,037

1/ Includes withholding, FICA, individual income, and railroad retirement taxes.

2/ Transient accommodations tax collection effective January 1, 1987.

3/ Includes payments of estimated taxes less refunds.

4/ Includes withheld and estimated taxes less refunds.

5/ Until 1981, real property taxes (included in State "other sources" for 1978) were collected by the State.

6/ Includes State motor vehicle weight tax.

Source: Tax Foundation of Hawaii, Government in Hawaii, 1989, tables 13 and 29.

Table 272.-- ESTIMATED TAX BURDEN FOR A FOUR-PERSON FAMILY ON OAHU: 1970 AND 1988

[In dollars. Based on a gross family income equivalent to four times the per capita personal income estimated for Hawaii. For underlying assumptions, see source]

Subject	1970	1988	Percent increase
Total tax burden	5,559	25,610	361
Federal income	2,130	8,096	280
State income	693	3,693	433
Social Security	1,247	7,758	522
General excise	304	1,207	297
Real property	366	1,006	175
Employment 1/	527	3,301	526
Specific excise 2/	67	161	140
Automobile	225	388	72
Direct	4,342	18,432	325
Indirect	1,217	7,178	490
Gross family income	16,408	62,716	282
After taxes	10,849	37,106	242

1/ Unemployment compensation, temporary disability insurance, and workers' compensation.

2/ Alcohol, tobacco, telephone, and bicycle.

Source: Tax Foundation of Hawaii, The Tax Burden of the Arnie Aloha Family (November 1989).

Table 273.-- FAMILY TAX BURDEN, BY NUMBER OF WAGE EARNERS AND DEPENDENTS AND GROSS INCOME, FOR HONOLULU: 1988

Subject	2 incomes, no dependents			1 income, 3 dependents		
	$15,000	$35,000	$75,000	$15,000	$35,000	$75,000
Total tax liability ..	$1,862	$5,993	$19,337	$1,200	$5,515	$17,898
Percent of income ..	12.4	17.1	25.8	8.0	15.8	23.9
Federal taxes	915	3,003	11,767	330	2,708	10,809
State and local taxes ..	947	2,991	7,570	870	2,807	7,089
51-city index, total 1/	0.91	1.02	1.04	0.84	1.01	1.03
Federal taxes	1.00	1.00	0.98	1.00	1.00	0.98
State and local taxes ..	0.84	1.05	1.16	0.80	1.02	1.12

1/ Honolulu relative to 51-city average (based on largest city in each State, plus D.C.).

Source: Government Finance Research Center of the Government Finance Officers Association, Comparative Tax Burdens: Largest City in Each State (1987), p. 43.

Table 274.-- PER CAPITA REVENUE, EXPENDITURE, AND DEBT OF STATE AND LOCAL GOVERNMENT: 1986 AND 1987

Subject	Amount (dollars)		Percent of U.S.		Rank	
	1986	1987	1986	1987	1986	1987
General revenue	2,873	3,024	108.0	103.6	13	11
Taxes	1,780	1,955	115.0	117.4	8	8
Debt outstanding	3,193	3,235	116.8	109.6	16	22
General expenditure	2,691	2,835	107.5	105.2	15	16
Capital outlay	483	512	128.8	150.3	11	5

Source: Statistical Abstract of the United States: 1989, pp. 274-275; U.S. Bureau of the Census, Government Finances in 1986-87, GF 87, No. 5, pp. 106-110.

Table 275.-- STATE REVENUE RECEIPTS: 1987 AND 1988

[In thousands of dollars. Years ended June 30]

Source of revenues	1987: all funds	1988		
		All funds	General funds	Special funds
Total 1/	2,874,674	3,143,872	2,036,188	1,107,684
Tax revenues	1,863,728	2,015,493	1,854,790	160,703
General excise	817,937	920,232	905,903	14,328
Specific excises 2/	314,132	231,138	163,052	68,086
Individual income	542,315	625,547	625,547	-
Corporate income	61,517	66,017	66,017	-
Unemployment compensation	76,056	77,010	-	77,010
Other taxes, licenses, permits 3/	51,772	95,550	94,271	1,279
Fines, forfeits, and escheats	12,873	14,336	12,718	1,618
Federal grants-in-aid	403,599	438,307	8,657	429,650
Revenues from other agencies	13,517	12,427	2,305	10,122
Rents, royalties, land income 4/	24,666	25,366	4,745	20,621
Earnings: general departments	209,960	231,977	64,994	166,983
Earnings: auxiliary enterprises	30,962	34,948	-	34,948
Earnings: public service enterp.	137,475	170,285	-	170,285
Interest earned	102,849	108,321	54,682	53,638
Miscellaneous	75,045	92,412	33,296	59,116

1/ Excludes transfers and repayments except as shown.

2/ Includes public service companies, tobacco, liquor, insurance, vehicle registration and weight, and fuel taxes.

3/ Includes transient accommodations, franchise, inheritance and estate, and conveyance taxes.

4/ Includes investment and unallocable interest income.

Source: Tax Foundation of Hawaii, Government in Hawaii, 1989, table 12.

Table 276.-- STATE OPERATING EXPENDITURES, BY FUNCTION: 1978, 1987, AND 1988

[In thousands of dollars. For years ended June 30. Due to reclassification of funds, 1978 data are not exactly comparable to later years. Data include general, special, and proprietary fund expenditures; unemployment trust fund treated as a special fund. Interfund transfers eliminated to avoid duplication]

Functions	1978	1987	1988
Total	1,459,601	2,796,506	2,980,740
General government: Control	24,174	65,067	69,272
Staff	68,322	126,024	157,816
Public safety: Police and fire .	2,723	2,202	2,928
Other protection	79,584	101,714	109,741
Highways	29,057	72,270	78,624
Natural resources	22,413	22,808	36,032
Health and sanitation	29,992	118,025	126,174
Hospitals and institutions	73,159	97,677	104,934
Public welfare	241,795	341,357	380,823
Education: Higher	164,851	314,310	338,609
Public schools	254,979	476,298	518,862
Libraries and other .	29,917	24,613	28,773
Recreation	7,777	15,994	19,222
Utilities and other enterprises	37,798	161,055	194,075
Debt service 1/	118,264	275,602	279,665
Retirement and pension	66,604	133,221	131,079
Employees' health and hosp. insurance	12,025	640	442
Unemployment compensation	66,824	53,496	55,827
Grants-in-aid to counties	22,327	31,373	32,462
Urban redevelopment and housing	39,497	222,340	146,462
Miscellaneous	7,761	49,297	58,878
Cash capital improvements 2/ ...	59,756	91,121	109,636

1/ Debt service on revenue bonds reimbursable from highway funds included under Highways; from airport and harbor funds under Utilities; from Sand Island receipts, land revolving trust, and Veterans' home loan funds under Miscellaneous.

2/ Special funds accounted for $59,620,212 in 1978, $73,322,640 in 1987, and $86,399,131 in 1988.

Source: Tax Foundation of Hawaii, Government in Hawaii, 1989, table 35.

Table 277.-- COUNTY OPERATING REVENUES, BY SOURCE, AND COUNTY OPERATING EXPENDITURES, BY OBJECT, FOR ALL COUNTIES COMBINED: 1978, 1987, AND 1988

[In thousands of dollars. For years ended June 30]

Subject	1978	1987	1988
OPERATING REVENUES 1/			
Total	403,686	680,267	699,844
Real property taxes	155,428	346,171	353,790
Other taxes	33,293	58,504	71,750
Fees, licenses, permits, and fines ...	8,086	18,265	18,035
Departmental earnings and charges	27,820	75,678	90,972
State grants	31,762	41,717	48,848
Federal grants	141,670	98,758	75,798
Other sources	5,627	41,175	40,645
OPERATING EXPENDITURES 2/			
Total	404,279	672,565	698,948
General government: Control	7,447	9,373	8,856
Staff	36,984	63,301	70,031
Public safety: Police and fire	73,372	140,768	153,885
Other protection	11,203	23,990	26,487
Highways	18,622	31,591	33,663
Health and sanitation	26,595	52,610	60,544
Public welfare	4,578	7,512	7,992
Public schools	501	550	577
Recreation	25,697	42,926	48,766
Interest	15,739	40,951	44,167
Bond redemption	19,946	22,986	21,472
Pension and retirement	26,455	51,569	47,491
Economic and urban development	32,110	19,907	22,146
Mass transit	23,912	47,837	47,794
Miscellaneous	16,563	40,755	40,240
Cash capital improvements	64,555	75,935	64,833

Footnotes and source follow next table.

Table 278.-- COUNTY OPERATING REVENUES, BY SOURCE, AND COUNTY OPERATING EXPENDITURES, BY OBJECT, BY COUNTIES: 1988

[In thousands of dollars. For year ended June 30, 1988]

Subject	City and Co. of Honolulu	County of Maui	County of Hawaii	County of Kauai
OPERATING REVENUES 1/				
Total	523,201	66,878	72,687	37,077
Real property taxes	258,840	33,925	42,803	18,222
Other taxes	54,940	7,408	6,226	3,180
Fees, licenses, permits, and fines	12,672	2,173	2,303	887
Departmental earnings and charges	71,061	10,619	4,521	4,771
State grants	20,962	10,996	11,205	5,685
Federal grants	68,883	136	3,012	3,767
Other sources	35,843	1,620	2,617	565
OPERATING EXPENDITURES 2/				
Total	517,455	74,529	73,694	33,266
General government: Control	4,956	1,168	1,771	991
Staff	47,939	8,715	7,756	5,621
Public safety: Police and fire ..	107,718	15,027	22,995	8,145
Other protection .	17,496	3,620	4,752	619
Highways	20,508	5,162	5,116	2,877
Health and sanitation	50,677	5,485	2,963	1,489
Public welfare	-	4,735	2,823	434
Public schools	-	189	256	132
Recreation	34,677	4,556	6,050	3,483
Interest	35,784	2,557	4,850	976
Bond redemption	17,144	1,173	2,120	1,035
Pension and retirement	33,334	2,592	8,703	2,862
Economic and urban development ...	22,146	-	-	-
Mass transit	47,194	-	600	-
Miscellaneous	29,545	5,053	1,895	3,747
Cash capital improvements	48,437	14,497	1,044	855

1/ Excludes loan, bond, revolving, improvement district, and certain trust funds, and Board of Water Supply revenues.

2/ Excludes certain revolving, bond, loan and enterprise funds, and urban redevelopment land purchases.

Source: Tax Foundation of Hawaii, Government in Hawaii, 1989, tables 24-27 and 36-39.

Table 279.-- NUMBER OF EXEMPTIONS AND ADJUSTED GROSS INCOME REPORTED ON INDIVIDUAL FEDERAL INCOME TAX RETURNS: TAX YEARS 1969 TO 1987

Tax year	Number of returns	Number of exemptions 1/	Adjusted gross income (less deficit)		
			Total ($1,000)	Per return (dollars)	Per exemption 1/ (dollars)
1969	290,251	716,153	2,407,048	8,293	3,361
1970	302,426	763,992	2,802,445	9,267	3,668
1971	308,814	809,612	3,010,051	9,747	3,718
1972	318,023	763,985	3,250,608	10,221	4,255
1973	345,211	832,636	3,749,212	10,861	4,503
1974	346,824	805,533	3,957,023	11,409	4,912
1975	358,510	841,976	4,269,028	11,908	5,070
1976	362,956	815,937	4,625,609	12,744	5,669
1977	380,937	847,098	5,218,740	13,700	6,161
1978	403,217	925,125	5,943,659	14,741	6,425
1979	412,922	880,845	6,493,228	15,725	7,372
1980	424,177	936,056	7,320,740	17,259	7,821
1981	437,977	957,338	7,870,617	17,970	8,221
1982	445,953	1,027,743	8,236,603	18,470	8,014
1983	450,097	1,037,030	8,652,808	19,224	8,344
1984	461,424	1,055,297	9,322,406	20,204	8,834
1985	470,745	1,071,202	9,965,599	21,170	9,303
1986	485,014	1,096,934	10,959,168	22,596	9,991
1987	506,302	1,112,189	12,670,065	25,025	11,392

1/ Exemptions for age or blindness excluded through 1981 and included thereafter.

Source: U.S. Treasury Department, Internal Revenue Service, Statistics of Income. Individual Income Tax Returns (annual); SOI Bulletin, Summer 1985, p. 93, Winter 1985-86, p. 97, Winter 1986-87, p. 83, Winter 1987-88, p. 80, and Spring 1989, p. 94 and records.

Table 280.-- ADJUSTED GROSS INCOME AND INCOME TAX, BY SIZE OF ADJUSTED GROSS INCOME, FOR INDIVIDUAL FEDERAL INCOME TAX RETURNS: TAX YEARS 1985 TO 1987

Tax year 1/ and size of adjusted gross income	Number of returns	Adjusted gross income less deficit ($1,000)	Total income tax	
			Number of returns	Amount ($1,000)
1985				
All returns	470,745	9,965,599	401,174	1,303,224
Under $10,000	157,592	594,482	92,534	37,405
$10,000 under $15,000 ..	71,127	885,637	69,041	70,943
$15,000 under $50,000 ..	206,162	5,756,704	203,839	666,567
$50,000 and over	35,864	2,728,775	35,760	528,309
Median income	$16,130	...	...	...
1986				
All returns	485,014	10,959,168	413,710	1,517,040
Under $10,000	155,888	580,153	88,376	40,557
$10,000 under $15,000 ..	70,147	873,927	68,094	68,448
$15,000 under $30,000 ..	133,570	2,867,876	132,176	297,030
$30,000 under $50,000 ..	82,541	3,186,782	82,278	402,182
$50,000 and over	42,868	3,450,430	42,786	708,822
Median income	$17,668	...	...	...
1987				
All returns	506,302	12,670,065	439,394	1,640,755
Under $10,000	155,127	575,076	94,292	31,723
$10,000 under $15,000 ..	70,617	879,316	66,680	61,961
$15,000 under $30,000 ..	136,371	2,926,801	134,564	273,647
$30,000 under $50,000 ..	85,766	3,316,271	85,519	378,081
$50,000 and over	58,421	4,972,601	50,339	895,343
Median income	17,905	...	...	...

1/ Filed in following year.

Source: U.S. Treasury Department, Internal Revenue Service, Statistics of Income--1985, 1986 and 1987, Individual Master File.

Table 281.-- CHARACTERISTICS OF INDIVIDUAL FEDERAL INCOME TAX RETURNS: TAX YEAR 1987

Subject	Number of returns	Amount ($1,000)
All returns and adjusted gross income (AGI) ...	506,302	12,670,065
Salaries and wages ...	432,930	9,624,144
Dividends ...	107,219	264,787
Interest ...	373,796	695,344
Unemployment compensation in AGI ...	23,826	39,199
Itemized deductions ...	175,582	2,049,374
Tax liability ...	439,394	1,640,755
Earned income credit ...	29,665	11,876

Source: U.S. Treasury Department, Internal Revenue Service, *SOI Bulletin*, Spring 1989, pp. 94-96.

Table 282.-- INTERNAL REVENUE SERVICE OPERATIONS: 1986 TO 1988

Subject	1986	1987	1988
Internal revenue collections ($1,000) ...	2,337,030	2,809,135	3,310,750
Individual income and employment taxes ...	2,040,878	2,479,536	2,890,569
Total returns filed ...	859,789	889,779	909,109
Individual income tax ...	472,022	484,804	503,855
Returns examined ...	7,326	5,101	4,208
Individual ...	6,545	4,429	3,485
Additional tax and penalties recommended after examination ($1,000) ...	88,471	37,496	28,092
Individual ...	43,577	16,953	16,690
Costs incurred ($1,000) ...	8,418	8,912	10,350

Source: Internal Revenue Service, *Annual Report*, 1986, 1987, and 1988.

Table 283.-- RESIDENT INDIVIDUAL STATE INCOME TAX RETURNS: TAX YEARS 1970 TO 1987

Year income was received	Number of resident returns	Adjusted gross income 1/ ($1,000)	Net taxable income ($1,000)	Tax liability ($1,000)
1970	304,365	2,645,390	1,743,908	108,446
1971	306,959	2,825,713	1,839,574	115,931
1972	321,669	3,071,919	1,977,779	126,422
1973	338,089	3,391,445	2,170,208	141,113
1974	351,867	3,705,597	2,407,936	160,460
1975	365,185	4,014,828	2,615,002	177,121
1976	372,484	4,279,268	2,832,875	195,542
1977	384,924	4,719,669	3,140,643	220,095
1978	409,218	5,455,155	3,718,082	266,497
1979	431,906	5,639,290	3,871,963	282,093
1980	423,858	6,506,757	4,275,817	321,738
1981	448,320	6,884,575	4,479,808	336,497
1982	422,535	6,912,014	4,469,031	339,108
1983	424,194	7,088,769	4,695,499	360,551
1984	422,245	7,604,199	4,980,484	387,300
1985	427,572	8,060,406	5,284,942	415,544
1986 2/	426,532	8,370,257	5,493,138	437,263
1987	468,363	10,147,149	7,170,035	556,135

1/ Exclusive of losses.

2/ Revised from Data Book 1988, table 299.

Source: Hawaii State Department of Taxation, Hawaii Income Patterns Individuals (annual).

Table 284.-- STATE INCOME TAX RESIDENT RETURNS ON INCOME RECEIVED DURING 1987, BY ADJUSTED GROSS INCOME CLASS

Adjusted gross income class	Number of returns	Adjusted gross income 1/ ($1,000)	Net taxable income 2/ ($1,000)	Tax liability ($1,000)
All resident returns ...	468,363	10,147,149	7,170,035	556,135
Taxable resident returns	378,996	9,969,299	7,170,035	556,135
Under $1,000	3,083	2,273	801	18
$1,000, under $5,000	48,373	150,754	69,763	2,395
$5,000, under $10,000	61,408	458,539	275,023	14,505
$10,000, under $20,000	91,568	1,341,351	956,018	63,851
$20,000, under $30,000	58,388	1,433,384	1,036,678	76,227
$30,000, under $40,000	41,666	1,442,855	1,032,512	79,178
$40,000, under $50,000	28,322	1,268,248	889,326	70,592
$50,000, under $75,000	31,818	1,902,928	1,379,319	115,186
$75,000, under $100,000	7,895	665,024	495,285	43,032
$100,000 and over	6,475	1,303,943	1,035,311	91,151
Nontaxable resident returns ..	89,367	177,850	...	...
Loss	2,499	(45,982)	...	...
Under $5,000	77,538	85,967	...	...
$5,000, under $10,000	7,035	47,344	...	...
$10,000 and over	2,295	44,539	...	...

1/ Total and subtotals exclude losses.

2/ Excludes zero bracket amount of $297,700,900. Conforms to taxable income as defined prior to 1982.

Source: Hawaii State Department of Taxation, records.

Table 285.-- MEDIAN ADJUSTED GROSS INCOME OF RESIDENT STATE INCOME TAX RETURNS, BY TYPE OF RETURN, 1977 TO 1987, AND BY COUNTIES, 1986 AND 1987

[In dollars]

Year income was received	Taxable and nontaxable returns			Taxable returns only		
	All returns	Joint	Other 1/	All returns	Joint	Other 1/
1977	8,726	17,716	4,236	11,057	19,718	5,838
1978	9,302	20,276	4,538	12,279	22,335	6,274
1979	8,738	20,073	4,757	11,804	22,636	6,875
1980	9,676	21,510	5,294	13,464	24,980	7,639
1981	10,220	23,321	5,794	14,737	26,881	8,455
1982	11,178	23,737	6,080	15,466	27,285	9,636
1983	11,297	25,047	6,432	15,937	29,076	10,009
1984	12,035	25,290	6,858	16,565	28,935	10,540
1985	12,488	25,838	7,087	17,124	29,870	10,710
1986 2/	12,941	26,576	7,768	17,747	31,755	11,557
1987	13,252	29,036	7,709	17,977	34,063	11,131
COUNTIES: 1986 2/						
Honolulu ...	13,340	27,905	8,148	18,165	33,130	11,816
Maui	13,264	24,659	8,485	16,734	27,769	11,909
Hawaii	9,697	21,190	4,956	15,815	27,633	9,317
Kauai	12,251	24,308	6,686	18,199	28,200	9,882
COUNTIES: 1987						
Honolulu ...	13,649	31,188	8,072	18,632	35,198	11,375
Maui	14,583	30,450	8,183	17,917	33,359	11,165
Hawaii	9,930	22,736	5,384	15,335	27,172	9,761
Kauai	11,283	24,981	6,531	16,659	31,713	9,931

1/ Including single, married filing separately, heads of households, and qualifying widows and widowers.

2/ Revised from Data Book 1988, table 301.

Source: Hawaii State Department of Taxation, Hawaii Income Patterns, Individuals (annual), and records.

Table 286.-- GENERAL EXCISE AND USE TAX BASE AND COLLECTIONS: 1987 AND 1988

[In thousands of dollars. Data are on a cash basis accounting]

Source of revenue	Tax base		Tax collections	
	1987 1/	1988 2/	1987 1/	1988 2/
All sources	28,310,499	31,559,864	869,039	965,882
Sources taxed at 4 percent	19,412,318	21,848,266	776,493	873,931
Retailing	9,449,673	10,385,974	377,987	415,439
Services	2,896,159	3,287,715	115,846	131,509
Contracting	2,003,056	2,487,571	80,122	99,503
Theater, amusement, radio	157,824	165,729	6,313	6,629
Interest	258,015	230,817	10,321	9,232
Commissions	465,826	528,809	18,633	21,152
Hotel rentals	1,369,401	1,408,891	54,776	56,356
All other rentals	2,073,870	2,306,655	82,955	92,266
Use (4 percent)	317,790	449,518	12,712	17,981
All others (4 percent)	420,704	596,587	16,828	23,863
Sources taxed at other rates 3/	8,898,181	9,711,598	43,796	47,995
Insurance solicitors	198,442	160,936	298	241
Sugar processing	385,842	165,350	1,929	827
Pineapple canning 4/	2,193	2,622	11	13
Producing	274,202	298,261	1,371	1,491
Manufacturing	595,140	629,303	2,976	3,147
Wholesaling	5,188,215	5,683,815	25,941	28,419
Services (intermediary)	148,557	182,138	743	911
Use (1/2 percent)	2,105,590	2,589,173	10,528	12,946
Unallocated net collections	-	-	48,749	43,957

1/ Revised from Data Book 1987, table 302, in which unallocated net collections were distributed rather than shown separately.

2/ Data reflect effects of Act 239, SLH 1987, which exempted goods shipped out of State from the general excise tax, effective Jan. 1, 1988.

3/ Insurance solicitors at 0.15 percent; others at 0.5 percent.

4/ Most exported canned pineapple is now exempted from general excise taxes when major companies are granted foreign trade subzone status.

Source: Hawaii State Department of Taxation, General Excise and Use Tax Base and General Excise and Use Tax Collections (calendar year summary tables).

Table 287.-- REAL PROPERTY TAX VALUATIONS: ANNUALLY, 1979 TO 1989

[Thousands of dollars. As of January 1. Government parcels assessed at $1, 1983-1987, and at 100 percent thereafter]

Year	Assessment ratio 1/	Assessor's gross valuation			Valuation for tax rate purposes
		Total	Land	Improvement	
1979 ...	60	19,376,848	10,690,826	8,686,022	12,908,172
1980 ...	60	21,881,304	12,074,217	9,807,087	14,831,641
1981 ...	60	25,371,079	13,775,220	11,595,859	17,933,736
1982 ...	60	29,631,825	15,982,660	13,649,165	21,397,832
1983 ...	100	46,659,440	23,603,352	23,056,088	39,508,235
1984 ...	100	49,085,380	24,900,368	24,185,012	41,672,612
1985 ...	100	51,231,020	25,507,708	25,723,312	43,581,421
1986 ...	100	52,814,463	26,442,872	26,371,591	45,222,885
1987 ...	100	54,655,038	27,396,477	27,258,561	46,629,959
1988 ...	100	67,628,063	36,730,370	30,897,693	50,219,249
1989 ...	100	76,926,745	42,778,927	34,147,818	57,526,564

1/ Percent of fair market value.

Source: Hawaii State Department of Taxation, Real Property Tax Valuations and Tax Rates (annual release, through 1980); Honolulu Department of Finance, Real Property Assessment Division, Real Property Tax Valuations & Tax Rates for the Fiscal Year 1981-82, and Real Property Tax Valuations, Tax Rates, & Exemptions (annual, 1982 forward).

Table 288.-- REAL PROPERTY TAX VALUATIONS: 1987 TO 1989

[In thousands of dollars]

Subject	1987	1988	1989
Assessor's gross valuation 1/	54,655,038	67,628,063	76,926,745
Land	27,396,477	36,730,370	42,778,927
Improvement	27,258,561	30,897,693	34,147,818
Exemptions 1/	7,665,004	17,016,434	18,752,245
Assessor's net taxable valuation	46,990,034	50,611,629	58,174,500
Half of valuation on appeal	360,075	392,380	647,936
Number of appeals	2,354	1,626	2,560
Valuation for tax rate purposes	46,629,959	50,219,249	57,526,564
Land	24,837,828	26,908,933	31,670,173
Improvement	21,792,131	23,310,316	25,856,391
Amount to be raised by taxation 2/	344,518	364,357	418,324

1/ Government parcels assessed at $1 in 1987 and 100 percent thereafter; see Data Book 1987, table 316, for estimated actual value in 1987.

2/ For fiscal years beginning July 1.

Source: City and County of Honolulu, Department of Finance, Real Property Assessment Division, Real Property Tax Valuations, Tax Rates, & Exemptions (annual).

Table 289.-- REAL PROPERTY TAX VALUATIONS, BY COUNTIES: 1989

[In thousands of dollars]

Subject	Honolulu	Maui	Hawaii	Kauai
Assessor's gross valuation 1/	56,654,499	9,400,180	7,182,706	3,689,360
Land	32,602,154	4,537,327	3,772,608	1,866,838
Improvement	24,052,345	4,862,853	3,410,098	1,822,522
Exemptions 1/	15,478,614	1,014,412	1,643,051	526,168
Assessor's net taxable valuation .	41,175,885	8,295,768	5,539,655	3,163,192
Half of valuation on appeal	408,051	173,816	30,996	35,073
Number of appeals	1,018	596	470	476
Valuation for tax rate purposes ..	40,767,834	8,121,952	5,508,659	3,128,119
Land	23,069,160	3,960,347	3,031,415	1,609,251
Improvement	17,698,674	4,161,605	2,477,244	1,518,868
Amount to be raised by taxation 2/	297,230	48,080	50,077	22,936

1/ Government parcels assessed at 100 percent; before 1988 at $1.

2/ For fiscal year beginning July 1.

Source: City and County of Honolulu, Department of Finance, Real Property Assessment Division, *Real Property Tax Valuations, Tax Rates, & Exemptions, 1989-1990 Tax Year, State of Hawaii* (July 1989), pp. 2-5.

Table 290.-- REAL PROPERTY TAX EXEMPTIONS, BY TYPE: 1989

Type of exemption	Number	Amount 1/ ($1,000)
All exemptions	190,111	18,868,335
Federal government	401	62,631
State government	5,938	6,147,794
County government	2,899	1,668,906
Hawaiian Homes Commission	885	74,679
Hawaii Housing Authority	446	738,585
Homes--fee	132,691	3,960,245
Homes--leasehold	30,996	815,537
Total disabled	5,393	122,487
Churches	1,398	695,006
Hospitals	74	310,777
Low-moderate income housing	312	362,119
Charitable organizations	606	393,013
Public utilities	771	429,848
Schools	140	398,808
All others	7,161	387,900

1/ Includes government parcels at actual value and exemptions on federal leases, if any.

Source: City and County of Honolulu, Department of Finance, Real Property Assessment Division, Real Property Tax Valuations, Tax Rates & Exemptions, 1989-1990 Tax Year, State of Hawaii (July 1989), p. 6.

Table 291.-- REAL PROPERTY TAX VALUATIONS, BY LAND USE CLASSES: 1989

[In thousands of dollars]

Land use class	Gross valuation, Jan. 1, 1989			Amounts to be raised by taxation, fiscal 1989-90
	Total	Land	Improvement	
All classes	76,926,745	42,778,927	34,147,818	418,324
Improved residential ...	32,824,406	20,558,506	12,265,900	156,393
Apartment	13,192,178	4,363,303	8,828,875	69,779
Commercial	9,030,488	4,752,170	4,278,318	62,666
Industrial	7,112,205	5,291,726	1,820,479	36,107
Agricultural	4,003,327	2,690,881	1,312,446	25,043
Conservation	1,175,380	968,689	206,691	3,287
Hotel/resort	6,487,105	2,008,035	4,479,070	57,778
Unimproved residential .	3,101,656	2,145,617	956,039	7,271

Source: City and County of Honolulu, Department of Finance, Real Property Assessment Division, *Real Property Tax Valuations, Tax Rates, & Exemptions, 1989-1990 Tax Year, State of Hawaii* (July 1989).

Table 292.-- REAL PROPERTY TAX RATES, BY COUNTIES: FISCAL YEAR 1989-1990

[Dollars per $1,000 net taxable value]

Land use class	Honolulu	Maui	Hawaii	Kauai
Land:				
Improved residential	6.09	4.50	8.50	6.10
Unimproved residential	6.56	4.75	10.00	6.10
Apartment	6.09	4.75	10.00	8.70
Hotel/resort	10.71	8.00	10.00	8.70
Commercial	9.45	7.00	10.00	8.70
Industrial	9.45	7.00	10.00	8.70
Agricultural	9.00	4.75	10.00	8.70
Conservation	9.00	4.75	10.00	8.70
Improvement:				
Improved residential	6.56	4.50	8.50	5.32
Unimproved residential	6.56	4.75	8.50	5.32
Apartment	6.56	4.75	8.50	8.25
Hotel/resort	10.71	8.00	8.50	8.25
Commercial	9.45	7.00	8.50	8.25
Industrial	9.45	7.00	8.50	8.25
Agricultural	9.00	4.75	8.50	8.25
Conservation	9.00	4.75	8.50	8.25

Source: City and County of Honolulu, Department of Finance, Real Property Assessment Division, Real Property Tax Valuations, Tax Rates, & Exemptions, 1989-1990 Tax Year, State of Hawaii (July 1989), p. 8.

Table 293.-- FEDERAL EXPENDITURES IN HAWAII: 1968 TO 1988

[Millions of dollars. For fiscal years ended June 30 through 1976 and September 30 thereafter]

Fiscal year	Amount	Fiscal year	Amount	Fiscal year	Amount
1968	848	1975	2,060	1982	3,505
1969	988	1976	2,162	1983	4,054
1970	964	1977	2,066	1984	4,232
1971	1,075	1978	2,507	1985	4,568
1972	1,173	1979	2,659	1986	4,643
1973	1,435	1980	3,151	1987	4,759
1974	1,644	1981	3,811	1988	4,957

Source: U.S. Office of Economic Opportunity (1968-1975) and U.S. Community Services Administration (1976-1980), Federal Outlays in Hawaii (annual report, 1968-1976) and Geographic Distribution of Federal Funds in Hawaii (annual report, 1977-1980); U.S. Bureau of the Census, Federal Expenditures by State for Fiscal Year 1988 (March 1989), p. 38.

Table 294.-- FEDERAL EXPENDITURES IN HAWAII, BY TYPES: FISCAL YEARS 1983 TO 1988

[Millions of dollars]

Type of expenditure	1983	1984	1985	1986	1987	1988
All categories	4,054	4,232	4,568	4,643	4,759	4,957
Grants to State and local governments	457	459	436	473	460	477
Salaries and wages	1,736	1,809	1,942	1,961	2,073	2,078
Direct payments for individuals	1,253	1,321	1,444	1,517	1,617	1,715
Procurement	535	577	672	619	525	591
Other direct expenditures	74	66	73	73	84	96
Department of Defense	2,198	2,324	2,553	2,486	2,503	2,562
Other federal agencies	1,857	1,908	2,015	2,158	2,256	2,395

Source: U.S. Bureau of the Census, Federal Expenditures by State for Fiscal Year 1988 (March 1989), pp. 37-43, and corresponding data in earlier reports.

Table 295.-- PER CAPITA FEDERAL EXPENDITURES IN HAWAII, BY TYPES: FISCAL YEAR 1988

Category	Amount (dollars)	Percent of U.S.	Rank 1/
All categories	4,535	127.9	7
Grants to State and local governments	437	95.0	34
Salaries and wages	1,901	353.0	4
Direct payments for individuals	1,569	95.6	34
Procurement	541	71.5	24
Other direct expenditures	88	58.5	31
Department of Defense	2,344	256.1	4
All other Federal agencies	2,191	83.3	48

1/ Out of 50 States, D.C., and 5 territories. Excluding the 5 territories, Hawaii ranked sixth for the all-categories total.

Source: U.S. Bureau of the Census, Federal Expenditures by State for Fiscal Year 1988 (March 1989), table 8 and 10.

Table 296.-- DIRECT FEDERAL EXPENDITURES OR OBLIGATIONS IN HAWAII, BY COUNTIES: FISCAL YEAR 1988

[Thousands of dollars]

County	All agencies	Department of Defense	All other agencies
State total 1/	5,064,944	2,564,145	2,500,799
City and County of Honolulu	4,390,962	2,481,625	1,909,337
Hawaii County	256,031	32,316	223,715
Kauai County	97,445	18,817	78,628
Maui County	180,671	31,387	149,284
State undistributed	139,836	-	139,836

1/ Figures differ somewhat from those in tables 309 and 310, because of treatment of Federal grants to State and local governments. In those tables, figure represented actual expenditures; in this table, Federal grants generally represent obligations and include payments to State and local governments, and grants to nongovernmental recipients (see source, pp. vii and viii).

Source: U.S. Bureau of the Census, Consolidated Federal Funds Report, Fiscal Year 1988, Vol. I: County Areas (March 1989), pp. 14-15.

Table 297.-- PUBLIC BONDED DEBT OF STATE AND COUNTY GOVERNMENTS: 1978 TO 1988

[In millions of dollars. As of December 31]

Year	Total bonded debt 1/	State debt	County debt			
			Honolulu	Maui	Hawaii	Kauai
1978	1,916.8	1,607.1	238.5	18.2	37.3	15.7
1979	1,971.9	1,677.6	224.3	16.8	38.3	14.9
1980	2,054.3	1,764.9	207.5	22.4	45.6	13.8
1981	2,217.9	1,883.6	235.5	21.1	46.2	31.4
1982	2,359.5	2,039.3	235.5	19.8	45.8	19.0
1983	2,545.4	2,235.8	219.5	19.0	52.1	19.0
1984	2,715.7	2,391.5	221.0	33.5	50.9	18.8
1985	3,131.5	2,621.2	404.0	30.8	56.7	18.8
1986	3,311.8	2,720.4	456.8	47.2	69.3	18.0
1987	3,298.4	2,700.7	448.7	48.8	67.3	32.9
1988	3,382.3	2,728.8	513.6	43.1	65.1	31.6

1/ Outstanding state and county bonds, both general obligation and revenue bonds.

Source: Tax Foundation of Hawaii, Government in Hawaii (annual).

Table 298.-- STATE GENERAL OBLIGATION BOND DEBT: 1983 TO 1988

[In dollars. As of June 30]

Year	Debt	Year	Debt
1983	1,590,350,534	1986	1,734,971,350
1984	1,641,694,840	1987	1,823,677,080
1985	1,697,635,620	1988	1,847,982,810

Source: Hawaii State Department of Accounting and General Services, records.

Table 299.-- GOVERNMENT WORKERS, BY LEVEL OF GOVERNMENT, CIVIL SERVICE STATUS, AND MEMBERSHIP IN STATE RETIREMENT SYSTEM: 1940 TO 1988

Year	Government workers (annual average)				State civil service workers 1/	State retirement system members 2/
	All levels	Federal	Terr. or State	County		
1940	22,136	11,139	6,245	4,752	2,616	8,352
1945	78,846	66,248	7,231	5,367	3,772	12,662
1950	33,140	18,891	7,955	6,294	5,280	16,120
1960	49,510	27,010	14,620	7,880	6,790	24,092
1970	73,640	33,380	30,600	9,660	10,166	38,912
1980	89,050	30,000	45,150	13,900	17,327	48,868
1985	93,300	32,400	47,400	13,500	18,472	51,767
1986	93,850	32,100	48,600	13,150	18,411	47,662
1987	96,050	32,800	49,900	13,400	18,956	48,262
1988	99,100	33,450	51,850	13,850	19,431	51,534

1/ December 31 through 1960 and June 30 thereafter. State or Territorial workers in civil service system. Data exclude county employees, also covered by civil service.

2/ June 30 through 1960 and March 31 thereafter. Includes State or Territorial employees, county employees, and inactive members (those no longer employed by the State, Territory, or counties who have remained in the System), but excludes pensioners.

Source: Robert C. Schmitt, Historical Statistics of Hawaii (University Press of Hawaii, 1978), pp. 616-617; The State of Hawaii Data Book 1978, p. 158; Hawaii State Department of Labor and Industrial Relations, Labor Force Data Book (March 1978, as updated); Hawaii State Department of Personnel Services, Annual Report for 1980-1988; Employees' Retirement System of the State of Hawaii, 58th Annual Report, June 30, 1984, p. 17, and records.

Table 300.-- STATE CIVIL SERVICE: 1986 TO 1988

[Years ended June 30. The State civil service system does not cover elected or appointed officials, public school teachers, university faculty, and other exempt positions]

Subject	1986	1987	1988
Civil service employees, June 30	18,411	18,956	19,431
Department of Education	3,998	4,374	4,157
Department of Health	4,636	4,598	4,710
Department of Human Services 1/	2,705	2,912	1,599
Department of Transportation	1,864	1,851	1,927
University of Hawaii	1,539	1,511	1,543
All others	3,669	3,710	5,495
Separations	1,919	2,032	3,725
Promotions	685	872	1,742
Transfers, demotions, and returns after promotions	788	771	1,677
Classification actions processed	3,144	3,892	4,407
Applications received	24,521	25,434	24,988
Applicants screened	22,357	22,814	20,146
Applicants placed on eligible list	8,056	10,977	6,932
Vacancies filled by competitive and noncompetitive actions	2,160	2,845	4,888

1/ Data before 1988 refer to the Department of Social Services and Housing. Some of the functions and staff of DSSH were transferred to other agencies by the 1987 Legislature.

Source: Hawaii State Department of Personnel Services, Annual Report, 1987, pp. 6, 10, 12, and 13, and records.

Table 301.-- STATE SALARY SCHEDULES FOR SELECTED LEVELS: 1987 TO 1989

[In dollars per month. Data refer to lowest and highest rates among six bargaining units and excluded managerial compensation plan employees classified under the salary range schedules]

Salary range	Lowest			Highest		
	Oct. 1987	Oct. 1988	July 1989	Oct. 1987	Oct. 1988	July 1989
SR-4	988	988	1,133	1,596	1,596	1,628
SR-11	1,206	1,206	1,490	2,084	2,084	2,126
SR-21	1,723	1,825	2,225	3,152	3,152	3,215
SR-31	2,675	2,835	3,423	5,039	5,392	5,500

Source: Hawaii State Department of Personnel Services, salary schedules and conversion tables.

Table 302.-- SALARIES OF SELECTED GOVERNMENT OFFICIALS: 1976, 1987, 1988, AND 1989

[Annual rates, in dollars, as of January 1]

Government official	1976	1987	1988	1989
Governor	50,000	80,000	80,000	90,699
Lieutenant Governor	45,000	76,000	76,000	86,164
Mayor, Honolulu	44,903	77,175	78,333	84,725
Mayor, Hawaii	43,644	63,792	63,792	63,792
Mayor, Maui	36,070	62,000	75,000	75,000
Mayor, Kauai	34,000	52,416	52,416	58,500
Chief Justice, Supreme Court	47,500	80,000	80,000	80,000
Associate Justice, Supreme Court ...	45,000	78,500	78,500	78,500
President, University of Hawaii	45,000	95,000	95,000	95,000

Source: Hawaii Revised Statutes; SLH 1989, Act 329; Salary Commission of the City and County of Honolulu, Final Report and Salary Schedule; Hawaii, Maui, and Kauai County ordinances; DBED telephone survey; newspaper articles.

Section 10

NATIONAL DEFENSE

This section presents statistics relating to the armed forces and their dependents, national guard strength, civilian employment in national defense, veterans, land controlled by the Department of Defense, military housing, and expenditures by the armed forces. Further information appears in sections 1, 2, 6, 12, 13, 14, and 23.

There were approximately 56,000 officers and enlisted men (including 3,100 aboard ships homeported in Hawaii) and 60,000 military dependents in the Islands as of July 1, 1989. This number has been relatively stable in recent years, but at the height of World War II more than 400,000 uniformed personnel were present. The Navy alone accounts for 36 percent of the current total. More than 10,000 Hawaii residents were in the armed forces worldwide in 1988. The importance of national defense in Hawaii can be further measured by total expenditures ($1.89 billion), military prime contract awards ($541 million), civilian employment (20,000), veterans in civil life (100,000), military personnel receiving retired pay (10,900, receiving $13.5 million monthly), military-connected pupils in public schools (20,100), military housing (19,400 units), and land owned or controlled by the armed forces (over 265,000 acres). Defense expenditures are second only to tourism as a source of income to Hawaii.

The Department of Business and Economic Development has issued periodic reports on Military Personnel and Dependents in Hawaii since 1959. Other published sources include reports of the U.S. Department of Defense, U.S. Bureau of the Census, Administrator of Veterans Affairs, and the Hawaii State Department of Labor and Industrial Relations, Department of Defense, and Department of Education. Definitions used by these sources frequently differ to some degree, and care is accordingly necessary in comparing data issued by two or more agencies. In mid-1988, for example, the number of armed forces in Hawaii was reported as 45,843 by DOD, 56,815 by the Bureau of the Census, and 64,053 by the local commanding officers reporting to DBED. Historical Statistics of Hawaii, Section 26, includes series on the armed forces dating back to 1795. Section 11 of the Statistical Abstract of the United States: 1989 presents data on national defense and veterans affairs for other states and the entire nation.

Table 303.-- HAWAII RESIDENTS ON ACTIVE DUTY IN THE ARMED FORCES WORLDWIDE: 1970 TO 1989

[As of June 30. Based on home of record]

Year	Number	Year	Number	Year	Number
1970	15,331	1984	11,466	1987	10,896
1975	10,640	1985	10,827	1988	10,548
1980	11,851	1986	10,882	1989	10,501

Source: U.S. Department of Defense, Defense Manpower Data Center, records.

Table 304.-- DEPARTMENT OF DEFENSE PERSONNEL AND DEPENDENTS: 1980 TO 1988

[As of September 30]

Year	Active-duty shorebased military personnel 1/	Dependents of active-duty military personnel 2/	Direct-hire civilian personnel 3/
1980	43,313	53,533	18,186
1981	44,141	50,324	18,814
1982	44,470	56,497	19,497
1983	44,651	51,119	20,005
1984	47,648	54,190	20,539
1985	46,875	55,552	20,762
1986	46,122	53,428	20,536
1987	47,262	52,438	20,243
1988	45,843	54,820	20,133

1/ Excludes those performing civilian functions, Navy personnel afloat unless temporarily shorebased, and all Coast Guard personnel.

2/ Includes dependents of Hawaii residents stationed out of the State, if those dependents remained in Hawaii.

3/ Military functions only.

Source: U.S. Department of Defense, Washington Headquarters Services, Directorate for Information, Operations and Reports, Department of Defense Selected Manpower Statistics (annual).

Table 305.-- MILITARY PERSONNEL, DEPENDENTS, AND FAMILIES: 1970 TO 1989

[Includes Navy, Marine Corps, and Coast Guard personnel afloat on a homeported basis. Data differ somewhat from similar series compiled by the Bureau of the Census and Department of Defense, reported elsewhere in this volume]

Date	Personnel and dependents	Military personnel 1/			Dependents in Hawaii	Military families
		Total	Ashore	Aboard ship		
1970: April 1 ..	117,943	56,085	41,362	14,723	61,858	20,558
July 1 ...	111,549	53,768	39,822	13,946	57,781	20,568
1971: July 1 ...	112,943	50,762	35,824	14,938	62,181	23,184
1972: July 1 ...	118,760	52,538	37,124	15,414	66,222	23,688
1973: July 1 ...	128,082	57,783	43,064	14,719	70,299	25,264
1974: July 1 ...	126,882	58,558	45,369	13,189	68,324	29,082
1975: July 1 ...	121,911	58,205	45,589	12,616	63,706	26,122
1976: July 1 ...	126,694	59,737	46,453	13,284	66,957	26,395
1977: July 1 ...	123,471	58,466	45,811	12,655	65,005	25,927
1978: July 1 ...	119,200	58,106	46,001	12,105	61,094	25,400
1979: July 1 ...	122,386	57,868	44,915	12,953	64,518	27,835
1980: April 1 ..	125,042	61,019	48,813	12,206	64,023	26,129
1981: July 1 ...	125,865	61,521	46,255	15,266	64,344	25,893
1982: July 1 ...	127,816	61,107	54,184	6,923	66,709	26,009
1983: July 1 ...	125,273	59,021	53,755	5,266	66,252	26,791
1984: July 1 ...	127,887	60,804	56,321	4,483	67,083	31,415
1985: July 1 ...	122,286	58,005	53,848	4,157	64,281	29,997
1986: July 1 ...	124,794	58,584	53,616	4,968	66,210	29,481
1987: July 1 ...	125,127	60,277	56,322	3,955	64,850	32,038
1988: July 1 ...	133,958	64,053	60,621	3,432	69,905	34,535
1989: July 1 ...	116,644	56,370	53,263	3,107	60,274	31,652

1/ Beginning in 1982, ship crews living ashore are included with the ashore total.

Source: Hawaii State Department of Business and Economic Development, annual survey of local commanding officers.

Table 306.-- MILITARY PERSONNEL, DEPENDENTS, AND FAMILIES, BY SERVICE AND ISLAND: JULY 1, 1989

[See headnote to preceding table]

Island and service	Personnel and dependents	Military personnel				Dependents in Hawaii	Military families
		Ashore and afloat	Living ashore		Living aboard ship		
			In hsg. units	In barracks			
State total	116,644	56,370	36,765	16,498	3,107	60,274	31,652
By island:							
Oahu	116,126	56,099	36,587	16,412	3,100	60,027	31,524
Hawaii	165	78	59	15	4	87	41
Maui	63	32	29	-	3	31	18
Kauai	265	136	79	57	-	129	69
Kure Atoll	25	25	11	14	-	-	-
By service:							
Air Force	14,282	5,480	4,384	1,096	-	8,802	3,785
Army	41,972	18,779	12,646	6,133	-	23,193	11,508
Coast Guard ...	2,062	1,013	755	97	161	1,049	524
Marine Corps ..	16,570	9,651	5,210	4,441	-	6,919	4,839
Navy	41,758	21,447	13,770	4,731	2,946	20,311	10,996

Source: Hawaii State Department of Business and Economic Development, annual survey of local commanding officers.

Table 307.-- NATIONAL GUARD STRENGTH: 1985 TO 1989

[Actual strength as of late June]

Service	1985	1986	1987	1988	1989
Total	6,096	5,882	5,814	5,838	5,769
Air National Guard ...	2,227	2,197	2,190	2,187	2,159
Army National Guard ..	3,869	3,685	3,624	3,651	3,610

Source: Hawaii State Department of Defense, Annual Report for 1985 and 1986, and records.

Table 308.-- DEPARTMENT OF DEFENSE PERSONNEL, MILITARY AND CIVILIAN, BY SERVICE: SEPTEMBER 30, 1988

Category	All services	Army	Navy	Air Force	Other DoD
Total	64,510	23,466	32,681	8,243	120
Military personnel 1/	43,953	18,170	19,857	5,926	-
Civilian personnel 2/	20,557	5,296	12,824	2,317	120

Footnotes and source follow next table.

Table 309.-- DEPARTMENT OF DEFENSE PERSONNEL, MILITARY AND CIVILIAN, BY LOCATION: SEPTEMBER 30, 1988

Installation or geographic area	Total DoD	Military personnel 1/	Civilian personnel 2/
State total	64,510	43,953	20,557
Aiea	1,281	975	306
Barbers Point NAS	1,762	1,390	372
Ford Island	404	372	32
Fort Shafter	2,935	869	2,066
Hickam AFB	8,287	6,285	2,002
Honolulu	2,533	2,160	373
Kaneohe	8,875	8,157	718
Kapalama	246	32	214
Kauai	240	133	107
Kunia	1,248	1,205	43
Lualualei	486	224	262
Pearl Harbor	18,553	7,670	10,883
Schofield Barracks	13,003	11,891	1,112
Tripler Army Medical Center	1,050	-	1,050
Wahiawa	820	618	202
Wheeler AFB	1,500	1,033	467
Other	1,287	939	348

1/ Active duty. Navy figure is limited to shore-based personnel and excludes personnel afloat and temporary shore-based.

2/ Direct hire. Army and Air Force data include civil function personnel.

Source: U.S. Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports, Department of Defense Distribution of Personnel by State and by Selected Locations, September 30, 1988, pp. 6 and 29.

Table 310.-- CIVILIAN EMPLOYMENT IN THE AIR FORCE, ARMY, AND NAVY: ANNUAL AVERAGES, 1983 TO 1988

Service	1983	1984	1985	1986	1987	1988
Total	20,850	20,600	20,750	20,400	20,150	20,200
Air Force	2,650	2,650	2,650	2,650	2,550	2,450
Army	4,850	5,000	5,400	5,600	5,600	5,500
Navy	13,350	12,950	12,700	12,150	11,950	12,250

Source: Hawaii State Department of Labor and Industrial Relations, Labor Force Data Book (March 1978), as revised annually through April 1989.

Table 311.-- MILITARY PRIME CONTRACT AWARDS, BY PROGRAM: 1986 TO 1988

[In thousands of dollars. Fiscal years ended September 30. Net value of Department of Defense prime contracts over $25,000]

Procurement program	1986	1987	1988
Total	562,843	461,449	540,991
Ships	12,556	14,352	14,459
Electronics and communication equipment ...	27,008	23,256	34,798
Petroleum	181,976	7,043	72,585
Construction	197,596	240,764	250,616
Services	108,205	150,039	139,167
All other procurement programs	35,502	25,995	29,366

Source: U.S. Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports, Prime Contract Awards by Region and State, Fiscal Years 1988, 1987, and 1986, p. 29.

Table 312.-- DEFENSE EXPENDITURES: 1978 TO 1988

[In thousands of dollars. Does not include military retired pay, Hawaii National Guard expenditures, or U.S. Army Corps of Engineers contracts]

Year	All categories	Military payroll	Civilian payroll	Supplies, equipment, services
1978	1,155,517	465,449	354,530	335,538
1979	1,221,784	497,840	372,596	351,348
1980	1,317,402	533,691	418,759	364,952
1981	1,449,328	612,761	450,684	385,883
1982	1,693,410	716,841	508,569	468,000
1983	1,848,175	793,782	558,220	496,175
1984	1,867,189	828,787	582,531	455,872
1985 1/	1,965,430	839,851	611,437	514,138
1986 1/	1,784,868	822,954	601,476	360,437
1987 1/ 2/	1,856,970	861,174	576,891	418,904
1988	1,892,363	890,698	602,546	399,119
SERVICE: 1987				
Air Force	212,380	107,715	37,501	67,164
Army	744,307	418,711	119,431	206,165
Coast Guard 2/ .	28,808	23,185	3,308	2,315
Navy and Marine Corps 1/	871,474	311,562	416,651	143,261
SERVICE: 1988				
Air Force	224,584	106,267	35,700	82,617
Army	857,182	435,598	131,001	290,584
Coast Guard	30,325	24,617	3,305	2,403
Navy and Marine Corps 1/	780,271	324,216	432,540	23,515

1/ Excludes Navy contract purchases from vendors in the State of Hawaii.

2/ Revised.

Source: Quarterly reports submitted to DBED by armed forces.

Table 313.-- ACREAGE OWNED OR CONTROLLED BY THE U.S. DEPARTMENT OF DEFENSE, BY BRANCH OF SERVICE AND BY ISLANDS: APRIL 1987

Branch of service and island	Total acreage	Owned in fee	Ceded land 1/	Other land 2/
All branches	265,402	26,406	146,187	92,809
Branch of service:				
Air Force	6,081	2,496	2,827	757
Army	165,807	4,058	101,688	60,061
Navy and Marine Corps	93,514	19,851	41,672	31,991
Island:				
Hawaii	108,928	4	84,819	24,105
Maui	8	5	-	3
Kahoolawe	28,777	-	28,777	-
Lanai	-	-	-	-
Molokai	6,319	-	12	6,307
Oahu	93,888	26,397	30,546	36,945
Kauai	27,371	-	1,925	25,446
Niihau	3	-	-	3
Kaula	108	-	108	-
Northwestern Hawaiian Islands, exc. Midway ...	-	-	-	-

1/ Includes 4,962 acres of submerged Navy land in Pearl Harbor.

2/ Held under lease, license, or permit. Includes 31,283 acres of Navy land used for intermittent training with no permanent occupancy and subject to restrictions.

Source: Hawaii State Department of Business and Economic Development, Land Ownership in Hawaii 1987 (Statistical Report 208, September 1988), pp. 7-10.

Table 314.-- HOUSING UNITS OWNED OR OPERATED BY THE ARMED FORCES, BY COUNTIES: APRIL 1, 1988 AND 1989

Year	State total	Honolulu	Hawaii	Kauai	Maui
1988	19,341	19,254	15	66	6
1989	19,368	19,290	12	60	6

Source: Hawaii State Department of Business and Economic Development, Housing Unit Estimates for Hawaii (annual).

Table 315.-- VETERANS IN CIVIL LIFE: 1979 AND 1989

Period of service	March 31, 1979	March 31, 1989
Total veterans 1/	94,000	100,000
Wartime veterans 1/	79,000	78,000
Vietnam era	33,000	37,000
Korean conflict	20,000	20,000
World War II	30,000	31,000
World War I	1,000	(Z)
Peacetime veterans	15,000	22,000
Post-Vietnam era only 2/	2,000	10,000
Between Korea and Vietnam only	13,000	10,000
Other peacetime veterans 3/	...	1,000

(Z) Under 500.

1/ Veterans who served in more than one conflict are counted only once in the totals and subtotals.

2/ Service only after May 7, 1975.

3/ Includes those who served only between World War I and World War II, and those who served only between World War II and the Korean conflict.

Source: Veterans Administration, Veteran Population (semi-annual report).

Table 316.-- MILITARY PERSONNEL RECEIVING RETIRED PAY FROM THE DEPARTMENT OF DEFENSE: SEPTEMBER 30, 1988

Service	Number of personnel		Monthly payment 2/ ($1,000)	Payment per person paid 2/ (dollars)
	Retired 1/	Paid by DOD		
Dept. of Defense	11,982	10,934	13,453	1,230
Army	4,885	4,350	4,947	1,137
Navy	3,325	3,059	3,808	1,245
Marine Corps	813	732	1,025	1,400
Air Force	2,959	2,793	3,673	1,315

1/ Includes retired personnel not receiving retired pay from the Department of Defense.

2/ Before deductions for withholding taxes and allotments, but after deductions for survivor benefits, dual compensation, etc.

Source: U.S. Department of Defense, Office of the Actuary, Defense Manpower Data Center, FY 1988 DOD Statistical Report on the Military Retirement System (1989), p. 20.

Section 11

SOCIAL INSURANCE AND HUMAN SERVICES

This section presents data related to governmental expenditures on social welfare; programs for old-age, survivors, disability and health insurance; public employee retirement; unemployment insurance; aid to the needy; and child and other welfare services. Also included here are selected statistics on United Way campaigns, foundations, and the quality of life. Related data are cited in Sections 9 and 13.

Total social welfare costs reached $342 million in fiscal 1988, compared with $230 million a decade earlier. About 56 percent of the 1988 total came from State funds and the remainder from the Federal government. The monthly average number of persons served by major welfare programs in 1988 was 48,000, or 4.4 percent of the resident population of the State. Fifty-five percent of all public assistance payments and 38 percent of all recipient cases were accounted for by aid to families with dependent children. The average monthly payment per case for public assistance was $414, or 29 percent more than in 1978. Participation in the food stamp program included 31,000 households and 81,000 persons. Among workers receiving unemployment compensation in 1988, weekly benefits averaged $162. About 142,000 Hawaii residents were receiving Social Security benefits in 1988, and about 117,000 were enrolled for Medicare. There were also 19,000 State and county government pensioners in 1988, with annual benefits of $189 million. Child adoptions in 1988 numbered 611. Seventy-six foundations reported assets of $239 million when most recently surveyed. The United Way reported revenues of $14.3 million and agency allocations of $11.3 million in 1988. A recent comparative study of the "quality of life" in 300 American metropolitan areas ranked Honolulu fourteenth.

Major data sources include reports and records of the U.S. Department of Health and Human Services, the Hawaii State Department of Human Services (formerly Social Services and Housing), the Hawaii State Department of Labor and Industrial Relations, the Hawaii State Employees' Retirement System, and the Aloha United Way. Historical Statistics of Hawaii, Section 8, contains data for earlier years. Section 12 of the Statistical Abstract of the United States: 1989 presents comparable Mainland data.

Table 317.-- PERSONS SERVED AND AVERAGE PAYMENTS, FOR PROGRAMS ADMINISTERED BY THE HAWAII STATE DEPARTMENT OF HUMAN SERVICES: 1978 TO 1988, MONTHLY AVERAGES

[Years ended June 30]

Year	Major programs 1/		Service cases	Medical payments 2/		Average money payments 3/ (dollars)	
	Recipients	Individuals		Cases	Individuals	Per case	Per individual
1978	28,575	75,485	15,000	14,381	15,572	321.63	121.75
1979	27,399	72,928	16,993	13,796	14,890	334.90	150.99
1980	27,219	71,693	16,312	12,932	13,598	337.59	128.17
1981	27,604	72,480	15,281	11,763	12,104	342.6	730.68
1982	26,130	68,835	8,124	11,629	12,228	355.42	135.05
1983	24,157	64,305	6,443	12,858	13,186	371.00	139.56
1984	23,378	62,430	6,586	12,642	12,939	369.92	138.72
1985	22,212	59,561	6,832	12,286	12,519	368.17	137.50
1986	21,119	56,140	7,186	12,481	12,710	368.25	138.67
1987	19,531	50,954	7,402	13,650	13,858	367.00	140.86
1988	18,394	48,108	7,217	12,197	13,731	414.00	158.00
COUNTIES: 1988							
Hawaii ..	3,964	10,557	1,140	1,643	1,679	421.00	158.00
Maui	1,163	3,277	630	1,050	1,796	418.00	149.00
Honolulu	12,631	32,607	4,824	9,784	9,607	412.00	160.00
Kauai ...	636	1,667	618	684	685	399.00	152.00

1/ Old age assistance, aid to disabled, aid to families with dependent children, AFDC unemployed parents, AFDC foster care, child welfare foster care, and general assistance.

2/ Ineligible for money assistance, receiving medical payment only.

3/ Gross obligation basis.

Source: Hawaii State Department of Human Services, records.

Table 318.-- PERCENT OF RESIDENT POPULATION SERVED BY MAJOR PROGRAMS ADMINISTERED BY THE HAWAII STATE DEPARTMENT OF HUMAN SERVICES, BY COUNTIES: 1986 TO 1988

[Based on fiscal year program data and July population estimates]

Year	State	Hawaii	Maui	Honolulu	Kauai
1986	5.3	10.1	4.7	4.7	5.2
1987	4.7	9.5	4.0	4.2	4.2
1988	4.4	9.0	3.5	3.9	3.4

Source: Hawaii State Department of Human Services, records; present volume, table 5.

Table 319.-- SOCIAL WELFARE COSTS: 1978 TO 1988

[Thousands of dollars. Years ended June 30]

Year	Total cost	By source of funds		By expenditure category			
		Federal	State	Administration	Medical payments	Money payments	Social service costs
1978	230,111	93,490	136,621	14,206	93,399	111,275	11,231
1979	244,898	101,411	143,487	15,250	104,694	113,854	11,100
1980	255,280	109,734	145,547	18,999	112,024	112,793	11,464
1981	286,709	131,652	155,057	19,595	135,541	118,346	13,227
1982	289,391	121,911	167,480	22,271	143,068	114,811	9,241
1983	303,782	133,498	170,284	26,616	157,996	111,185	7,985
1984	335,986	148,902	187,084	35,482	185,730	107,508	7,266
1985	294,406	127,052	167,354	33,604	145,559	103,611	11,632
1986	328,804	147,865	180,939	41,637	175,887	98,738	12,541
1987	314,025	141,185	172,840	37,899	172,966	91,909	11,251
1988	341,573	150,412	191,161	35,445	196,270	98,294	11,564

Source: Hawaii State Department of Human Services, records.

Table 320.-- PUBLIC ASSISTANCE PAYMENTS AND RECIPIENTS: 1987 AND 1988

[Years ended June 30]

Program	Total payments ($1,000)		Recipient cases (monthly average)		Average monthly payment (dollars)	
	1987	1988	1987	1988	1987	1988
All programs	124,160	131,622	31,878	35,585	325	308
Old age assistance 1/ .	12,429	13,343	4,924	5,123	210	217
Aid to the blind 1/ ...	562	581	174	175	269	276
Aid to disabled 1/	23,042	24,262	6,665	7,008	288	288
Aid to families with dependent children 2/	69,262	72,902	14,334	13,396	403	453
Child welfare foster care	2,275	2,442	784	8,370	242	243
General assistance	16,590	18,133	4,997	1,513	277	316

1/ Assisted through the Federal Social Security Administration, with State supplements (Supplementary Security Payments) included.
2/ Includes AFDC unemployed parent and AFDC foster care.
Source: Hawaii State Department of Human Services, records.

Table 321.-- PARTICIPATION IN FOOD STAMP PROGRAM: 1987 AND 1988

[Years ended June 30]

Subject	1987	1988
Households, total participating 1/	33,423	31,387
Public assistance recipients	16,167	15,480
Other participants 2/	17,256	15,907
Persons, total participating 1/	87,070	80,823
Public assistance recipients	46,288	44,810
Other participants 2/	40,782	36,013
Value of food stamps given to recipients ($1,000)	86,590	79,945

1/ Monthly averages.
2/ Not receiving public assistance (food stamps only).
Source: Hawaii State Department of Human Services, records.

Table 322.-- SOCIAL SECURITY POPULATION AGE 65 AND OVER, BY SEX, AGE, AND COUNTY: 1987 AND 1988

[Persons entitled to retirement and survivor insurance, including persons in non-payment status]

Subject	Dec. 1987	June 1988
Total	102,032	104,123
Sex:		
Male	49,918	50,675
Female	52,114	53,448
Age:		
65 to 69 years	36,750	37,172
70 to 74 years	27,424	28,069
75 to 79 years	18,519	18,947
80 to 84 years	10,913	11,209
85 to 89 years	5,578	5,764
90 to 94 years	2,173	2,267
95 years and over	675	695
County:		
Hawaii	13,034	13,318
Honolulu	73,849	75,362
Kalawao	78	79
Kauai	5,688	5,784
Maui	9,383	9,580

Source: U.S. Department of Health and Human Services, Social Security Administration, Office of Research and Statistics, records.

Table 323.-- RETIREMENT, SURVIVORS AND DISABILITY INSURANCE (OASDI) BENEFITS IN CURRENT-PAYMENT STATUS, BY TYPE OF BENEFIT AND COUNTY: DECEMBER 1988

Type of benefit and county	Number of OASDI benefits	Amount of monthly benefits ($1,000)
Total	141,730	67,493
TYPE OF BENEFIT		
Retirement program:		
Retired workers	95,732	50,689
Wives or husbands	11,014	2,784
Children	4,287	882
Survivor program:		
Widows, widowers, or parents	14,007	6,528
Children	6,418	2,322
Disability program:		
Disabled workers	7,378	3,883
Wives or husbands	646	82
Children	2,248	323
Age 65 and over:		
Men	48,937	28,913
Women	53,593	23,717
COUNTY		
Hawaii	19,190	9,107
Honolulu	100,455	47,849
Kalawao	105	48
Kauai	8,060	3,785
Maui	13,705	6,595
Unknown	220	109

Source: U.S. Department of Health and Human Services, Social Security Administration, Office of Research and Statistics, records.

Table 324.-- SOCIAL SECURITY BENEFICIARIES AND PAYMENTS: 1983 TO 1988

Year	Number of beneficiaries, December	Monthly amounts, December ($1,000)	Annual payments (million dollars)
1983	121,061	46,523	536
1984	125,012	50,529	578
1985	129,475	54,612	626
1986	133,520	57,629	667
1987	138,472	62,847	715
1988	141,730	67,493	770

Source: U.S. Department of Health and Human Services, Social Security Administration, Office of Research and Statistics, records.

Table 325.-- MEDICARE ENROLLMENT AND BENEFIT PAYMENTS: 1987 AND 1988

Coverage	All persons enrolled, July 1		Persons 65 and over enrolled, July 1		Estimated benefit payments (mil. dol.)	
	1987	1988	1987	1988	1987	1988
Hospital and/or medical insurance	112,817	116,961	104,441	109,087	230	248
Hospital insurance	109,353	113,272	100,977	105,398	137	145
Supplementary medical insurance	107,870	111,511	100,197	104,276	94	103
Hospital and medical insurance (both)	104,406	107,822	96,733	100,587	-	-

Source: U.S. Department of Health and Human Services, Health Care Financing Administration, Bureau of Data Management and Strategy, records.

Table 326.-- HAWAII STATE EMPLOYEES' RETIREMENT SYSTEM: 1982 TO 1988

[Revised]

Year	Membership, 1/ March 31	Pensioners, March 31	Assets, 2/ June 30 ($1,000)	Total benefits paid 3/ ($1,000)	Average monthly pension 3/ (dollars)	Administration expenses 3/ (dollars)
1982 ..	49,806	13,787	1,658,887	117,358	437	1,309,696
1983 ..	51,578	14,755	1,935,832	132,239	466	1,393,811
1984 ..	51,602	15,548	2,235,686	142,263	491	1,250,890
1985 4/	51,767	16,438	2,326,594	385,756	521	2,292,754
1986 ..	47,662	17,326	2,713,753	175,698	552	1,519,706
1987 ..	48,262	18,635	3,142,146	206,346	596	1,985,071
1988 ..	51,534	19,108	3,419,753	189,131	710	1,954,151

1/ State and county employees. Includes former employees who have not withdrawn their contributions but excludes all pensioners. Decline after 1985 primarily reflects corrections in ERS records.

2/ Book value.

3/ Year ended June 30. Data on total benefits paid exclude the employers' share of social security contributions.

4/ Benefits paid total includes refunds to members electing noncontributory retirement plan. Administration expenses total reflects Social Security sick leave recovery claims.

Source: Employees' Retirement System of the State of Hawaii, records.

Table 327.-- CHILD ADOPTIONS: 1983 TO 1988

Type of adoption	1983	1984	1985	1986	1987	1988
Total	582	548	550	544	581	611
By relatives	384	362	382	339	414	409
By nonrelatives	198	186	168	205	167	202
Placed by social agencies ...	149	145	121	160	134	167

Source: Hawaii State Department of Human Services, tabulations from SRS-NCSS-280 Adoption Card.

Table 328.-- CHILD DAY CARE SERVICES WITH PAYROLL, BY FEDERAL INCOME TAX STATUS AND BROAD GEOGRAPHIC AREA: 1987

Geographic area	Number of establishments		Receipts or revenue ($1,000)		Paid employees, March 12	
	Subject to tax	Tax exempt	Subject to tax	Tax exempt	Subject to tax	Tax exempt
State total ..	32	89	3,049	15,748	225	999
Oahu	22	69	2,379	14,470	183	902
Neighbor Islands ..	10	20	670	1,278	42	97

Source: U.S. Bureau of the Census, 1987 Census of Service Industries, Hawaii, SC87-A-12 (July 1989), tables 1a, 1b, 8a, and 8b.

Table 329.-- UNEMPLOYMENT INSURANCE: 1978 TO 1988

Calendar year	Covered employment	Insured unemployment		Average weekly total wages (dollars)	Gross benefits ($1,000)	Average weekly benefits (dollars)	Average benefit duration (weeks)
		Weekly average	Percent coverage				
1978 ...	384,214	11,287	36	223.21	45,653	91.25	16.2
1979 ...	400,311	10,381	42	238.91	39,864	93.07	13.5
1980 ...	413,095	11,291	56	259.63	49,222	102.91	13.7
1981 ...	417,018	12,224	51	276.79	66,194	113.59	14.2
1982 ...	409,511	13,657	44	295.25	77,788	124.34	14.8
1983 ...	413,289	13,452	45	310.31	70,392	123.22	15.8
1984 ...	422,950	11,567	43	321.58	70,914	135.72	14.8
1985 ...	434,637	10,091	37	332.90	62,123	134.03	14.6
1986 ...	447,667	8,901	37	347.06	56,391	140.16	14.3
1987 ...	467,179	7,329	37	364.79	49,900	149.50	13.4
1988 ...	(NA)	6,837	42	(NA)	50,627	162.40	13.5

NA Not available.

Source: Hawaii State Department of Labor and Industrial Relations, Unemployment Insurance Fact Book, 1970 to the Present, Hawaii (February 1989), pp. 6, 8, 11, 22, and 23, and records.

Table 330.-- FOUNDATIONS: 1984 TO 1989

[For definition and coverage, see Data Book 1984, table 306, headnote]

Subject	1984	1988	1989
Non-restricted foundations (open to grant-seekers):			
Number	68	76	93
Assets (million dollars)	164.6	238.8	251.0
Grants made (million dollars)	9.8	14.4	10.3
Restricted foundations (number)	62	62	10

Source: The Foundation Center, Foundations Directory (annual) and National Foundations (annual), special tabulations.

Table 331.-- UNITED WAY REVENUES AND OUTLAYS, 1985 TO 1988, AND BY ISLANDS, 1988

[$1,000]

Year and island	Total revenues	Contributions	Total outlays	Agency allocation
1985	11,869	11,517	11,603	10,307
1986 1/	12,807	12,258	12,454	10,920
1987	13,313	12,473	13,319	11,319
1988	14,302	13,474	13,782	11,293
ISLAND: 1988				
Aloha United Way (Oahu)	12,041	11,296	11,607	9,487
Hawaii Island United Way	900	853	825	667
United Way of Kauai	413	405	363	308
Maui United Way 2/	898	870	948	792
Friendly Isle United Way (Molokai)	50	50	39	39

1/ Data for Maui United Way cover 18-month period ending June 30, 1987.
2/ Year ended June 30, 1988.
Source: Aloha United Way, Annual Reports; Hawaii Island United Way, Inc., and Maui United Way, Financial Statements and records; United Way of Kauai and Friendly Isle United Fund, records.

Table 332.-- QUALITY OF LIFE GENERAL INDEX RANKINGS, FOR THE HONOLULU METROPOLITAN STATISTICAL AREA: 1984 TO 1989

[For earlier studies, including those with State-level rankings, see Data Book 1984, table 309, and Data Book 1986, table 348]

Authority and year of publication	Number of areas ranked	Local rank
Pierce, 1984 1/	277	47
Boyer and Savageau, 1985 2/	329	61
Thompson, 1986 3/	119	114
Eisenberg and Englander, 1987 4/	300	58
Eisenberg and Englander, 1988 5/	300	43
Eisenberg and Smith, 1989 6/	300	14
Boyer and Savageau, 1989 7/	333	32

1/ Paper presented by Robert Pierce to Association of American Geographers in Washington, D.C., April 24, 1984; cited in Honolulu Advertiser, April 25, 1984, p. A-3. Based on MSA data.

2/ Richard Boyer and David Savageau, Places Rated Almanac, 2nd ed. (Rand McNally and Co., 1985), p. 424. Based on MSA data.

3/ Thomas Patrick Thompson, ed., The National Metropolitan Area Study (Florence, Alabama: The University of North Alabama, Dec. 1986), p. 336. Composite weighted rank among 119 metropolitan statistical areas with populations between 250,000 and 1,000,000.

4/ Richard Eisenberg and Debra Wishik Englander, "The Best Places to Live in America," Money, August 1987, pp. 34-44. Based on MSA data.

5/ Richard Eisenberg and Debra Wishik Englander, "The Best Places to Live in America," Money, August 1988, pp. 76-84. Based on MSA data.

6/ Richard Eisenberg and Marguerite T. Smith, "The Best Places to Live in America," Money, September 1989, pp. 124-141. Based on MSA data.

7/ Richard Boyer and David Savageau, Places Rated Almanac, rev. ed. (Prentice Hall, 1989), p. 397. Based on MSA data.

Table 333.-- QUALITY OF LIFE SPECIAL INDEX RANKINGS, BY GEOGRAPHIC AREAS: 1985 TO 1988

Type of index, area ranked, authority, and year of publication	Number of areas ranked	Local rank
STRESS INDEXES		
State:		
Linsky and Straus, 1986 1/	50	17
Honolulu:		
ZPG, 1985 2/	184	106
Levine, 1988 3/	286	175
ZPG, 1988 4/	192	105
RETIREMENT LOCATION INDEXES		
Kauai:		
Boyer and Savageau, 1987 5/	131	83
Maui:		
Boyer and Savageau, 1987 5/	131	100

1/ Arnold S. Linsky and Murray A. Straus, Social Stress in the United States (Auburn House Publishing Co., 1986), pp. 38-39 and 51. Based on "State Stress Index," calculated from 1976 data.

2/ Zero Population Growth, Inc., ZPG's 1985 Urban Stress Test (1985). Based on data for large cities rather than MSAs.

3/ Robert Levine, "City Stress Index: 25 Best, 25 Worst," Psychology Today, November 1988, pp. 52-58. Based on MSA data.

4/ Zero Population Growth, Inc., Urban Stress Test (1988). Based on data for large cities rather than MSAs.

5/ Richard Boyer and David Savageau, Retirement Places Rated, 2nd ed. (Rand McNally & Co., 1987), pp. 200-203.

Section 12

LABOR FORCE, EMPLOYMENT, AND EARNINGS

This section presents statistics on the size and composition of the labor force, employment by occupation, industry, class of worker, and place of work, payrolls, wage rates, hours, industrial safety, work disability, unionization, and strikes. Related series appear in Sections 3, 9, 10, and 19 through 23.

The civilian labor force averaged 516,000 in 1988; of this total, 500,000 persons were employed and 16,000 were unemployed and seeking work. The civilian jobcount rose from 417,000 in 1978 to 523,000 a decade later. (The jobcount differs from employment because the latter counts multiple jobholders--"moonlighters"--only once. Eight percent of all persons currently employed in the summer of 1988 held two or more jobs.) Areas with large concentrations of workers in 1980 included downtown Honolulu (46,000), Waikiki (30,000), and Pearl Harbor-Hickam (15,000). The unemployment rate averaged 3.2 percent in 1988, with individual island levels ranging from 2.8 to 8.9 percent. By occupation, one out of four civilian workers is classified as professional or managerial. Activities with especially large numbers of employees include services (132,000 in 1988), retail trade (107,000), and government (99,000). The average annual earnings of wage and salary workers under the Hawaii Employment Security Law reached $20,454 in 1988, or 3.3 percent less than the 1978 average after adjustment for inflation. Average weekly hours in 1988 were 39.0 for all civilian workers and 44.6 for those on full-time schedules, and ranged from 30.6 (for retail trade) to 44.5 (for communication and utilities). Labor union membership was estimated at 154,000 in 1987-1988. Work stoppages in 1988 involved about 400 workers.

Principal sources for the data on labor force, employment, place of work, hours, earnings, unions and strikes are the decennial reports of the U.S. Bureau of the Census, the same agency's Current Population Survey, reports by the U.S. Bureau of Labor Statistics, monthly and annual tabulations by the Hawaii State Department of Labor and Industrial Relations, and annual surveys of pay rates by the Hawaii Employers Council. *Historical Statistics of Hawaii*, Section 4, includes figures for earlier years. Statistics for the nation as a whole are published in Section 13 of the *Statistical Abstract of the United States: 1989*.

Table 334.-- LABOR FORCE STATUS, BY SEX: 1950 TO 1980

Sex and labor force status	1950 1/	1960	1970	1980
BOTH SEXES				
Persons 16 years and over	351,375	402,937	522,018	723,479
Labor force	207,952	263,450	344,269	494,223
Armed forces	22,856	47,255	49,785	58,443
Civilian labor force	185,096	216,195	294,484	435,780
Employed	167,571	207,456	285,556	415,181
Unemployed	17,525	8,739	8,928	20,599
Percent of civ. labor force	9.5	4.0	3.0	4.7
Not in labor force	143,423	139,487	177,749	229,256
MALE				
Persons 16 years and over	197,864	219,822	272,726	370,683
Labor force	157,088	186,507	222,221	290,420
Armed forces	22,572	46,626	48,860	54,032
Civilian labor force	134,516	139,881	173,361	236,388
Employed	120,972	135,481	168,940	225,331
Unemployed	13,544	4,400	4,421	11,057
Percent of civ. labor force	10.1	3.1	2.6	4.7
Not in labor force	40,776	33,315	50,505	80,263
FEMALE				
Persons 16 years and over	153,511	183,115	249,292	352,796
Labor force	50,864	76,943	122,048	203,803
Armed forces	284	629	925	4,411
Civilian labor force	50,580	76,314	121,123	199,392
Employed	46,599	71,975	116,616	189,850
Unemployed	3,981	4,339	4,507	9,542
Percent of civ. labor force	7.9	5.7	3.7	4.8
Not in labor force	102,647	106,172	127,244	148,993

1/ Data refer to persons 14 years and over.

Source: U.S. Bureau of the Census, U.S. Census of Population: 1960, General Social and Economic Chracteristics, Hawaii, PC(1)-13C (1962), tables 53 and 54, and Detailed Characteristics, Hawaii, PC(1)-13D (1962), table 115; 1970 Census of Population, General Social and Economic Characteristics, Hawaii, PC(1)-C13 (December 1971), table 53; 1980 Census of Population, General Social and Economic Characteristics, Hawaii, PC80-1-C13 (June 1983), table 61.

Table 335.--LABOR FORCE STATUS OF THE CIVILIAN NONINSTITUTIONAL POPULATION 16 YEARS AND OVER: ANNUAL AVERAGES, 1988

[Numbers in thousands]

Labor force status	Persons 16 years and over			16 to 19 years (both sexes)
	Both sexes	Men	Women	
Civilian noninstitutional population .	773	366	407	60
Civilian labor force	516	272	244	29
Percent of population	66.8	74.3	60.0	48.1
Employment	500	263	237	26
Percent of population	64.6	71.8	58.2	42.9
Unemployment	16	9	7	3
Rate 1/	3.2	3.4	3.0	10.7
Not in civilian labor force	257	94	163	31

1/ Percent of civilian labor force. The error ranges for these rates, at the 90-percent confidence interval, are: both sexes, 2.7-3.7; men, 2.6-4.1; women, 2.3-3.7; 16-19, 7.2-14.3.

Source: U.S. Bureau of Labor Statistics, Geographic Profile of Employment and Unemployment, 1988 (Bulletin 2327, May 1989), p. 38.

Table 336.-- LABOR FORCE PARTICIPATION RATES, BY SEX: ANNUAL AVERAGES, 1978 TO 1988

[Percent of civilian noninstitutional population 16 years and over in civilian labor force]

Year	Both sexes	Male	Female	Both sexes, 16 to 19 years
1978	66.9	77.6	57.4	56.4
1979	65.4	75.5	56.5	51.9
1980	63.8	72.0	56.7	50.1
1981	66.7	74.9	59.5	49.2
1982	66.8	75.5	58.9	43.9
1983	66.8	75.1	59.1	41.8
1984	65.5	73.5	58.1	45.3
1985	65.5	72.6	59.1	48.5
1986	66.1	73.8	59.0	47.9
1987	67.4	75.3	60.4	49.7
1988	66.8	74.3	60.0	48.1

Source: U. S. Bureau of Labor Statistics, *Geographic Profile of Employment and Unemployment* (annual).

Table 337.-- CIVILIAN LABOR FORCE, TOTAL AND FEMALE, BY RACE AND HISPANIC ORIGIN: 1988

[Thousands]

Race 1/	Both sexes	Female	Race 1/	Both sexes	Female
All races	516.0	235.3	Asian/Pacific -- con.:		
			Korean	10.1	5.4
White	159.8	71.2	Other Asian/Pac.	9.4	3.8
Asian/Pacific 2/	342.9	158.6	Black	4.0	1.8
Japanese	161.4	76.8	Native American 3/	1.3	0.6
Filipino	70.8	31.6	Race n.e.c.	8.0	3.2
Hawaiian	57.5	25.6			
Chinese	33.6	15.2	Hispanic 4/	30.0	13.0

1/ Based on census definitions. Persons of mixed race are classified by self-identification or race of mother.

2/ Asians and Pacific Islanders include Japanese, Chinese, Filipino, Korean, Asian Indian, Vietnamese, Hawaiian, Guamanian, and Samoan residents.

3/ American Indian, Eskimo, or Aleut.

4/ Hispanics may be of any race.

Source: Hawaii State Department of Labor and Industrial Relations, Labor Force Information for Affirmative Action Programs (April 1989), table 2.

Table 338.-- EMPLOYMENT STATUS OF THE CIVILIAN LABOR FORCE: ANNUAL AVERAGES, 1970 TO 1988

Year	Civilian labor force	Civilian employment	Unemployed	
			Number	Percent
1970	321,550	305,650	15,900	4.9
1971	336,800	313,450	23,350	6.9
1972	351,000	324,050	26,950	7.7
1973	364,600	338,350	26,250	7.2
1974	375,000	345,350	29,650	7.9
1975	382,950	351,100	31,850	8.3
1976	410,000	370,000	40,000	9.8
1977	418,000	388,000	31,000	7.3
1978	420,000	388,000	32,000	7.7
1979	422,000	395,000	26,000	6.3
1980	440,000	418,000	21,000	4.9
1981	451,000	427,000	24,000	5.4
1982	461,000	430,000	31,000	6.7
1983	472,000	442,000	30,000	6.5
1984	472,000	445,000	27,000	5.6
1985	479,000	452,000	27,000	5.6
1986	492,000	468,000	24,000	4.8
1987 1/ .	513,000	493,000	20,000	3.8
1988	516,000	500,000	16,000	3.2

1/ Revised from Data Book 1988, table 360.

Source: Hawaii State Department of Labor and Industrial Relations, Labor Force Data Book (March 1978), as revised annually through April 1989.

Table 339.-- EMPLOYMENT STATUS OF THE CIVILIAN LABOR FORCE, FOR COUNTIES AND ISLANDS: ANNUAL AVERAGES, 1978 TO 1988

[Data for 1980 and later years are not directly comparable to estimates for earlier years. Island data may not add exactly to State totals in preceding table]

Year	Oahu	Hawaii County	Kauai County	Maui County			
				County total	Lanai	Maui	Molokai
CIVILIAN LABOR FORCE							
1978	330,650	37,600	18,450	33,300	1,800	27,850	3,600
1979	331,100	37,250	18,500	34,150	1,750	28,650	3,700
1980	338,350	43,550	19,550	37,550	1,300	33,900	2,350
1981	345,700	45,450	20,100	39,800	1,300	36,000	2,500
1982 1/ ...	350,100	47,200	20,800	42,900	1,300	38,950	2,600
1983 1/ ...	359,550	48,350	21,650	44,850	1,150	40,950	2,750
1984 1/ ...	357,050	48,650	21,300	44,950	1,150	41,250	2,550
1985 1/ ...	366,500	50,400	22,050	46,950	1,050	43,550	2,300
1986 1/ ...	368,700	51,300	23,400	48,600	1,050	45,050	2,500
1987 1/ ...	382,300	53,700	25,000	52,000	1,000	48,400	2,600
1988	382,600	54,700	26,200	52,550	1,050	49,050	2,450
CIVILIAN EMPLOYMENT							
1978 1/ ...	305,950	33,950	17,200	30,850	1,650	26,000	3,250
1979 1/ ...	311,050	34,350	17,500	32,050	1,650	27,100	3,300
1980	322,800	40,850	18,700	35,650	1,200	32,450	2,050
1981	328,500	42,150	18,900	37,450	1,150	34,150	2,150
1982	328,600	42,700	19,150	39,550	1,100	36,250	2,200
1983 1/ ...	338,950	44,050	20,000	41,450	1,050	38,150	2,200
1984 1/ ...	337,950	44,900	19,800	42,250	1,000	39,000	2,200
1985 1/ ...	348,050	46,150	20,550	44,150	850	41,300	2,000
1986	352,500	47,500	22,000	46,050	900	42,950	2,150
1987	368,700	50,750	23,850	49,650	900	46,500	2,250
1988	372,000	51,950	25,250	50,800	950	47,600	2,250

Continued on next page.

Table 339.-- EMPLOYMENT STATUS OF THE CIVILIAN LABOR FORCE, FOR COUNTIES AND ISLANDS: ANNUAL AVERAGES, 1978 TO 1988 -- Con.

Year	Oahu	Hawaii County	Kauai County	Maui County			
				County total	Lanai	Maui	Molokai
UNEMPLOYED							
1978	24,700	3,650	1,200	2,400	200	1,850	400
1979	20,050	2,900	1,000	2,050	100	1,550	400
1980	15,550	2,700	850	1,900	100	1,500	350
1981	17,150	3,350	1,150	2,350	150	1,900	300
1982	21,500	4,500	1,700	3,300	250	2,700	400
1983	20,600	4,300	1,650	3,400	100	2,800	550
1984	19,100	3,750	1,500	2,700	150	2,200	350
1985	18,450	4,250	1,500	2,800	200	2,250	300
1986	16,200	3,850	1,400	2,550	100	2,100	350
1987 1/ ..	13,600	2,950	1,150	2,350	100	1,900	300
1988	10,600	2,700	950	1,750	100	1,450	200
PERCENT UNEMPLOYED							
1978 1/ ..	7.5	9.8	6.5	7.3	10.4	6.6	10.6
1979 1/ ..	6.1	7.8	5.3	6.1	5.6	5.5	10.8
1980 1/ ..	4.6	6.2	4.2	5.1	8.0	4.4	14.0
1981 1/ ..	5.0	7.3	5.8	5.9	10.7	5.2	12.9
1982 1/ ..	6.1	9.5	8.1	7.7	17.5	6.9	15.2
1983 1/ ..	5.7	8.9	7.7	7.6	9.1	6.8	19.4
1984	5.3	7.7	7.0	6.0	11.3	5.4	13.8
1985 1/ ..	5.0	8.5	6.7	5.9	20.2	5.2	12.9
1986 1/ ..	4.4	7.5	5.9	5.3	11.5	4.7	13.3
1987 1/ ..	3.6	5.5	4.6	4.5	10.8	3.9	12.4
1988	2.8	5.0	3.7	3.3	7.6	3.0	8.9

1/ Revised from Data Book 1988, table 361.

Source: Hawaii State Department of Labor and Industrial Relations, Labor Force Data Book (March 1978), tables 2-8, as revised annually through April 1989.

Table 340.-- CHARACTERISTICS OF THE INSURED UNEMPLOYED: 1988

[Percent distribution. Includes all eligible claimants who filed new claims for unemployment insurance benefits during the year. Includes both intrastate and interstate agent claimants]

Characteristic	Percent	Characteristic	Percent
Total	100.0	Industry--con.:	
		Fin., ins., real estate	4.6
Age:		Services	20.9
Under 22 years	3.3	Hotel	3.8
22 to 24 years	6.2	Others and not avail.	7.7
25 to 34 years	33.1		
35 to 44 years	29.0	Occupation:	
45 to 54 years	15.6	Prof., tech., mgr.	18.2
55 to 64 years	10.5	Clerical, sales	17.7
65 years and over	2.3	Services	11.3
		Farm, fish., forest.	5.0
Sex:		Processing	1.0
Male	63.4	Machine trades	2.1
Female	36.6	Bench work	1.1
		Structural work	13.2
Industry:		Miscellaneous	8.3
Government	0.3	Not available	22.1
Agriculture	8.2		
Construction	25.9	Duration:	
Manufacturing	5.5	1 to 4 weeks	38.7
Trans., commun., util.	10.4	5 to 14 weeks	38.8
Wholesale, retail trade	16.5	15 weeks and over	22.5

Source: Hawaii State Department of Labor and Industrial Relations, *Characteristics of the Insured Unemployed in Hawaii--1988*.

Table 341.-- JOBCOUNT, BY COUNTIES: ANNUAL AVERAGES, 1970 TO 1988

[Persons holding more than one job are counted in each position. As a result, these data differ from corresponding estimates of employment, reported elsewhere in this section. Active-duty armed forces are excluded, unless also employed in civilian jobs. Also excludes persons not working because of labor disputes. Because of a change in the method of estimating nonagricultural self-employed and unpaid family workers, jobcount estimates for 1987 and 1988 are not exactly comparable to those for earlier years]

Year	State total	City and County of Honolulu	Hawaii County	Kauai County	Maui County
1970	331,580	270,310	28,410	12,540	20,320
1971	339,070	276,260	29,000	12,960	20,840
1972	349,950	285,900	29,450	13,050	21,550
1973	365,050	298,900	30,150	13,600	22,250
1974	374,650	306,350	31,000	13,600	23,650
1975	380,900	308,550	32,350	14,550	25,400
1976	387,000	312,100	33,000	15,250	26,600
1977	398,600	319,900	34,100	15,900	28,450
1978	417,500	334,400	35,400	16,650	30,950
1979	434,450	348,150	36,300	17,200	32,650
1980	448,150	357,900	38,200	18,400	33,850
1981	449,900	357,350	39,050	18,300	35,150
1982	446,050	352,150	39,050	18,300	36,600
1983	453,750	357,100	39,850	18,900	37,850
1984	461,000	362,200	41,000	18,950	38,950
1985	473,150	369,800	42,400	19,900	41,100
1986	486,650	379,600	43,300	21,200	42,500
1987 1/ .	504,900	391,750	45,600	22,450	45,100
1988	523,450	404,200	47,650	24,450	47,100

1/ Revised from Data Book 1988, table 363.

Source: Hawaii State Department of Labor and Industrial Relations, Labor Force Data Book (March 1978), as revised annually through April 1989; Labor Force Statistics, Bull. No. 70-F and 72-F.

Table 342.-- JOBCOUNT, BY INDUSTRY: ANNUAL AVERAGES, 1979 TO 1988

Industry	1979	1980	1981	1982	1983
Nonagriculture, wage and salary	394,000	404,100	404,800	399,400	406,200
Contract construction	23,400	23,950	21,900	17,850	17,800
Manufacturing	23,900	23,350	23,000	22,400	22,350
Durable goods	4,800	4,700	4,250	3,900	3,600
Nondurable goods	19,100	18,650	18,750	18,550	18,750
Food processing	11,600	11,150	11,150	11,150	11,250
Pineapple	3,200	2,900	2,800	2,750	2,550
Sugar	3,950	3,900	3,950	3,850	3,750
Other	4,400	4,350	4,350	4,550	4,900
Textile, apparel	3,300	3,050	2,950	2,850	2,900
Printing, publishing	2,950	3,100	3,150	3,150	3,150
Other nondurables	1,250	1,350	1,500	1,400	1,450
Transp., commun., utilities ..	30,500	31,200	31,900	31,200	31,100
Transportation	21,200	21,500	21,900	21,150	21,100
Communication	6,750	7,150	7,400	7,500	7,550
Utilities	2,500	2,550	2,600	2,550	2,450
Trade	102,900	105,250	105,450	104,850	106,850
Wholesale	18,300	18,600	18,700	18,500	18,400
Retail	84,650	86,700	86,750	86,300	88,450
Finance, insur., real estate .	31,500	32,850	31,700	31,500	31,900
Services and miscellaneous ...	95,350	98,450	101,900	101,200	104,950
Hotels	24,100	24,900	24,800	26,500	27,000
Other services, misc.	71,250	73,550	77,100	74,700	77,900
Government	86,500	89,050	89,000	90,300	91,300
Federal	29,700	30,000	30,350	31,500	32,100
Air Force	2,750	2,650	2,600	2,650	2,650
Army	4,250	4,100	4,300	4,650	4,850
Navy	11,850	11,950	12,500	13,100	13,350
Other	10,800	11,250	10,900	11,100	11,250
State	43,300	45,150	45,250	45,650	45,900
Local	13,500	13,900	13,350	13,150	13,300
Agriculture, wage and salary ...	10,850	10,650	11,550	11,300	11,200
Sugar	5,000	4,950	5,200	4,700	4,500
Pineapple	2,550	2,500	2,450	2,450	2,300
Other	3,300	3,200	3,950	4,150	4,400
Nonagric., self-employed 2/	24,350	28,300	29,150	31,300	32,300
Agric., self-employed 3/	4,550	4,600	4,350	3,950	3,900
Labor disputes	700	500	50	100	150

Continued on next page.

Table 342.-- JOBCOUNT, BY INDUSTRY: ANNUAL AVERAGES, 1979 TO 1988 -- Con.

Industry	1984	1985	1986	1987 1/	1988
Nonagriculture, wage and salary	412,650	425,750	438,550	459,950	477,100
Contract construction	15,800	17,150	18,650	21,200	23,050
Manufacturing	21,900	21,900	22,050	21,900	22,300
Durable goods	3,350	3,700	3,750	3,950	4,250
Nondurable goods	18,550	18,250	18,250	17,950	18,050
Food processing	10,750	10,050	10,100	9,950	10,300
Pineapple	2,150	1,900	2,000	2,050	2,050
Sugar	3,700	3,450	3,300	3,050	2,950
Other	4,900	4,700	4,850	4,800	5,300
Textile, apparel	2,950	3,300	3,350	3,150	2,750
Printing, publishing	3,350	3,450	3,400	3,400	3,500
Other nondurables	1,450	1,400	1,400	1,450	1,450
Transp., commun., utilities ..	31,950	33,200	34,200	36,800	38,000
Transportation	22,100	23,400	24,550	26,900	27,900
Communication	7,500	7,350	7,100	7,250	7,450
Utilities	2,400	2,450	2,550	2,650	2,650
Trade	111,400	115,650	117,950	123,750	127,600
Wholesale	18,900	19,550	19,550	20,400	20,550
Retail	92,450	96,100	98,400	103,400	107,050
Finance, insur., real estate .	31,850	31,950	33,150	33,700	34,750
Services and miscellaneous ...	107,950	112,650	118,750	126,500	132,250
Hotels	28,250	29,000	29,250	31,250	34,500
Other services, misc.	79,700	83,650	89,500	95,250	97,750
Government	91,850	93,300	93,850	96,050	99,100
Federal	32,100	32,400	32,100	32,800	33,450
Air Force	2,650	2,650	2,650	2,550	2,450
Army	5,000	5,400	5,600	5,600	5,500
Navy	12,950	12,700	12,150	11,950	12,250
Other	11,550	11,600	11,750	12,650	13,250
State	46,550	47,400	48,600	49,900	51,850
Local	13,200	13,500	13,150	13,400	13,850
Agriculture, wage and salary ...	10,800	10,400	10,150	10,550	10,000
Sugar	4,300	4,100	4,000	3,800	3,700
Pineapple	2,100	1,950	2,050	1,900	1,750
Other	4,400	4,350	4,100	4,800	4,550
Nonagric., self-employed 2/	33,450	33,400	34,750	30,700	32,750
Agric., self-employed 3/	3,650	3,500	3,200	3,700	3,600
Labor disputes	450	100	200	50	100

Footnotes and source follow next table.

Table 343.-- JOBCOUNT BY INDUSTRY, BY COUNTIES: ANNUAL AVERAGE, 1988

Industry	State total	City and County of Honolulu	Hawaii County	Kauai County	Maui County
Nonagriculture, wage and salary	477,100	377,850	37,200	21,150	40,900
Contract construction	23,050	18,250	2,000	900	900
Manufacturing	22,300	16,600	2,550	1,050	2,050
Durable goods	4,250	3,800	150	(Z)	250
Nondurable goods	18,050	12,800	2,400	1,050	1,800
Food processing	10,300	5,850	2,050	900	1,500
Textile, apparel	2,750	2,700	(NS)	(NS)	(NS)
Printing, publishing	3,500	3,000	(NS)	(NS)	(NS)
Other nondurables	1,450	1,250	(NS)	(NS)	(NS)
Transp., commun., utilities .	38,000	31,150	2,200	2,350	2,300
Transportation	27,900	23,450	(NS)	(NS)	(NS)
Communication	7,450	5,850	(NS)	(NS)	(NS)
Utilities	2,650	1,900	(NS)	(NS)	(NS)
Trade	127,600	99,650	10,350	5,650	11,900
Wholesale	20,550	17,600	1,600	400	950
Retail	107,050	82,050	8,800	5,300	10,950
Finance, insur., real estate	34,750	29,300	1,800	1,100	2,550
Services and miscellaneous ..	132,250	99,750	10,500	7,000	15,000
Hotels	34,500	17,600	4,700	4,050	8,150
Other services, misc.	97,750	82,150	5,800	2,950	6,850
Government	99,100	83,100	7,750	3,050	5,200
Federal	33,450	31,950	750	300	400
Air Force	2,450	2,350	(NS)	(NS)	(NS)
Army	5,500	5,400	(NS)	(NS)	(NS)
Navy	12,250	12,150	(NS)	(NS)	(NS)
Other	13,250	12,100	(NS)	(NS)	(NS)
State	51,850	41,400	5,100	1,900	3,450
Local	13,850	9,750	1,850	850	1,400
Agriculture, wage and salary ..	10,000	2,650	3,550	1,200	2,550
Sugar	3,700	450	1,200	1,000	1,050
Pineapple	1,750	750	-	-	1,000
Other	4,550	1,450	2,400	250	500
Nonagric., self-employed 2/ ...	32,750	23,050	4,500	1,900	3,300
Agric., self-employed 3/	3,600	650	2,400	200	350
Labor disputes	100	50	-	-	-

Footnotes and source on next page.

Table 343.-- JOBCOUNT BY INDUSTRY, BY COUNTIES: ANNUAL AVERAGE, 1988 -- Con.

Z Fewer than 50.
NS Not shown separately.
1/ Revised from Data Book 1988, tables 363 and 364.
2/ Includes unpaid family workers and domestics. Data for 1987 and 1988 are not comparable to earlier years.
3/ Includes unpaid family workers.

Source: Hawaii State Department of Labor and Industrial Relations, Labor Force Data Book (March 1978), as revised annually through April 1989.

Table 344.-- NUMBER OF JOBS HELD BY CURRENTLY EMPLOYED CIVILIANS, BY COUNTIES: JULY-AUGUST 1988

[Based on a telephone survey of 3,927 persons 18 years old or over. Excludes armed forces]

Number of jobs held	State total	Honolulu	Hawaii	Kauai	Maui
Currently employed ...	501,776	385,870	50,457	21,338	44,111
One job only	459,800	355,088	45,441	19,626	39,645
Full-time	382,936	294,579	37,007	16,798	34,552
Part-time	76,864	60,509	8,434	2,828	5,093
More than one job	39,808	28,897	4,809	1,636	4,466
Full-time and other	31,784	23,303	3,485	1,523	3,473
Several part-time	8,024	5,594	1,324	113	993
No response	2,168	1,885	207	76	-

Source: Hawaii State Department of Business and Economic Development, Tourism Branch, special tabulation from Hawaii Tourism Impact Survey 1988.

Table 345.-- LABOR FORCE AND JOB ESTIMATES AND PROJECTIONS: 1985 TO 2010

[Thousands. Annual averages. Series M-K projections, developed by DBED]

Subject	Estimates: 1985	Projections				
		1990	1995	2000	2005	2010
Civilian labor force 1/ (1,000)	479.0	543.8	599.1	646.5	683.4	721.7
Persons employed 1/	452.0	516.7	568.6	614.0	649.5	686.3
Total jobs (1,000)	541.5	611.0	665.5	713.1	750.4	789.1
Armed forces	68.4	68.4	68.4	68.4	68.4	68.4
Civilian jobs 1/	473.1	542.6	597.0	644.7	682.0	720.6
Self-employed	36.9	42.3	46.6	50.3	53.2	56.2
Wage and salary jobs by sector .	436.2	500.2	550.5	594.4	628.8	664.4
Agriculture	10.4	10.9	11.3	11.7	12.0	12.4
Food processing	10.0	10.0	9.9	9.7	9.4	9.1
Miscellaneous manufacturing ..	11.9	12.7	13.3	13.9	14.5	15.0
Construction	17.2	21.2	23.3	25.0	26.1	27.1
Transportation, communication, and utilities	33.2	37.3	40.2	42.5	43.9	45.3
Trade (exc. eating & drinking)	75.6	88.4	97.7	106.2	113.0	120.0
Eating and drinking places ...	40.1	48.1	52.7	57.3	61.4	65.9
Finance, insurance, and real estate	31.9	35.4	39.2	41.6	42.9	44.5
Hotels	29.0	34.5	38.1	41.3	43.7	46.3
Other services	83.6	103.6	121.1	136.5	149.4	163.3
State and local government ...	60.9	65.8	70.7	75.3	78.8	81.4
Federal government 1/	32.4	32.5	32.9	33.3	33.7	34.1

1/ Includes civilian employees of the armed forces.

Source: Hawaii State Department of Business and Economic Development, Population and Economic Projections for the State of Hawaii to 2010 (Series M-K) (November 1988), p. 9.

Table 346.-- EMPLOYMENT BY INDUSTRY: 1980 AND 1970

Industry	1980	1970
Employed persons 16 years and over	415,181	285,556
Agriculture, forestry, and fisheries	14,560	13,161
Mining	233	322
Construction	29,888	26,637
Manufacturing	32,914	31,188
Nondurable goods	21,234	21,173
Durable goods	11,680	10,015
Transportation, communications, and other public utilities	36,478	26,403
Wholesale and retail trade	98,542	61,044
Finance, insurance, and real estate	31,648	14,356
Business and repair services	17,832	8,978
Personal services	31,288	20,301
Entertainment and recreation services	6,862	3,756
Professional and related services	73,363	48,310
Public administration	41,573	31,100

Source: U.S. Bureau of the Census, 1980 Census of Population, General Social and Economic Characteristics, Hawaii, PC80-1-C13 (June 1983), table 61.

Table 347.-- EMPLOYMENT BY CLASS OF WORKER: 1940 TO 1980

[Persons 14 years and over through 1960; 16 years and over, 1970 and 1980]

Class of worker	1940	1950	1960	1970	1980
All employed civilians	153,796	167,571	209,370	285,556	415,181
Private wage and salary workers	113,551	111,036	144,602	200,912	300,315
Government workers	18,553	34,400	46,078	70,547	90,401
Self-employed workers	15,967	19,192	17,009	12,832	22,965
Unpaid family workers	5,725	2,943	1,681	1,265	1,500

Source: U.S. Bureau of the Census, U.S. Census of Population: 1960, General Social and Economic Characteristics, Hawaii, Final Report PC(1)-13C (February 1962), table 56; 1970 Census of Population, General Social and Economic Characteristics, Hawaii, PC(1)-C13 (December 1971), table 56; 1980 Census of Population, General Social and Economic Characteristics, Hawaii, PC80-1-C13 (June 1983), table 67.

Table 348.-- OCCUPATION, BY SEX: 1980 AND 1970

Occupation	Both sexes		Females only	
	1980	1970	1980	1970
Employed persons 16 years and over ...	415,181	285,556	189,850	116,616
Managerial and professional specialty occupations	97,606	58,242	42,212	22,565
Executive, administrative, and managerial occupations	48,671	25,048	16,900	6,129
Professional specialty occupations	48,935	33,194	25,312	16,436
Technical, sales, and administrative support occupations	132,651	83,698	89,078	53,113
Technicians and related support occupation	11,982	7,442	4,501	2,027
Sales occupations	47,475	28,227	27,465	15,571
Administrative support occupations, including clerical	73,194	48,029	57,112	35,515
Service occupations	74,149	44,024	41,691	26,766
Private household occupations	1,547	2,131	1,376	2,024
Protective service occupations	7,578	4,304	855	143
Service occupations, except protective and household	65,024	37,589	39,460	24,599
Farming, forestry, and fishing occupations	14,154	12,572	2,785	2,118
Precision production, craft, and repair occupations	48,198	43,484	3,941	2,731
Operators, fabricators, and laborers	48,423	43,536	10,143	9,323
Machine operators, assemblers, and inspectors	14,000	13,589	5,730	5,743
Transportation and material moving occupations	16,430	13,767	1,132	472
Handlers, equipment cleaners, helpers, and laborers	17,993	16,180	3,281	3,108

Source: U.S. Bureau of the Census, 1980 Census of Population, General Social and Economic Characteristics, Hawaii, PC80-1-C-13 (June 1983), table 61.

Table 349.-- OCCUPATION OF EMPLOYED CIVILIANS, BY SEX: ANNUAL AVERAGES, 1988

Occupation	Both sexes	Men	Women
All occupations (number in thousands)	500	263	237
Percent	100.0	100.0	100.0
Managerial and professional specialty:			
Executive, administrative, and managerial	13.8	14.8	12.7
Professional specialty	13.5	12.0	15.1
Technical, sales, and administrative support:			
Technicians and related support	3.0	3.1	2.8
Sales	13.6	11.3	16.1
Administrative support, including clerical	15.2	5.8	25.6
Service occupations	17.6	15.2	20.3
Precision production, craft, and repair	9.6	17.0	1.2
Operators, fabricators, and laborers:			
Machine operators, assemblers, and inspectors ..	2.5	2.9	2.0
Transportation and material moving	3.7	6.4	0.8
Handlers, equipment cleaners, helpers, and laborers	3.5	5.5	1.3
Farming, forestry, and fishing	4.1	6.1	1.9

Source: U.S. Bureau of Labor Statistics, *Geographic Profile of Employment and Unemployment, 1988* (Bulletin 2327, May 1989), pp. 58-59.

Table 350.-- PLACE OF RESIDENCE AND PLACE OF WORK OF EMPLOYED PERSONS 16 YEARS AND OVER FOR THE CITY AND COUNTY OF HONOLULU, BY AREAS: 1980

[Residence and labor force status as of April 1; place of work as of preceding week. Includes armed forces. For census tract data, see Data Book 1987, pp. 359-361]

Area	Census tract equivalent	Workers by place of-- Residence	Workers by place of-- Work 1/
County total	1.02-114	369,523	356,692
Honolulu CDP	1.02-72, 114	183,677	246,969
Waikiki	18.01-20.02	9,094	30,011
Ala Moana	37	1,326	18,578
Kakaako	38, 39	407	26,696
Central Business District	40, 42, 51, 52	3,193	33,478
Iwilei-Kalihi Kai	57-60	6,442	21,571
Airport	68.03-72	5,061	33,714
Other areas	-	158,154	82,921
Rest of Oahu	73-113	185,846	109,723
Ewa	73-89.03	93,223	42,044
Wahiawa	90-95.05	20,475	20,940
Waianae	96.01-98	9,611	4,327
Waialua	99.01-100	4,405	2,031
Koolauloa	101-102.02	5,711	2,214
Koolaupoko	103.02-113	52,409	19,337
Unknown	-	-	18,830

1/ Excludes residents who worked away from the City and County of Honolulu and nonresidents who worked within the area.

Source: U.S. Bureau of the Census, 1980 Census of Population and Housing, Census Tracts, Honolulu SMSA, PHC80-2-183 (1983), table P-9, and Urban Transportation Planning Package, printouts (March 1985).

Table 351.-- EMPLOYMENT AND PAYROLLS COVERED BY THE HAWAII EMPLOYMENT SECURITY LAW AND UNEMPLOYMENT COMPENSATION FOR FEDERAL EMPLOYEES: 1978 TO 1988

Year	Number of employers, December 1/	Average employment	Wages and salaries: Total ($1,000)	Wages and salaries: Per worker (dollars)
INCLUDING GOVERNMENT				
1978	18,847	383,451	4,459,594	11,630
1979	19,639	400,963	4,983,844	12,429
1980	19,988	412,281	5,585,489	13,548
1981	20,190	414,830	6,002,943	14,471
1982	20,259	408,791	6,281,953	15,367
1983	20,937	413,767	6,668,001	16,115
1984	21,288	421,821	7,050,512	16,714
1985	21,945	434,400	7,530,505	17,335
1986	24,510	446,756	8,072,318	18,069
1987	24,686	468,027	8,920,628	19,060
1988	24,787	484,483	9,909,719	20,454
EXCLUDING GOVERNMENT				
1983	20,931	325,650	4,848,497	14,889
1984	21,282	332,227	5,150,338	15,502
1985	21,939	343,400	5,518,268	16,070
1986	24,498	355,192	5,997,767	16,886
1987	24,680	373,955	6,738,448	18,019
1988	24,781	389,024	7,564,054	19,444
PRIVATE NON-AGRICULTURAL				
1983	20,515	314,142	4,679,895	14,897
1984	20,856	320,902	4,973,005	15,497
1985	21,510	332,092	5,344,772	16,094
1986	23,992	343,555	5,817,270	16,933
1987	24,145	362,271	6,543,781	18,063
1988	24,211	376,884	7,341,568	19,480

1/ Beginning in 1986, includes employers reporting 1 or more employees at any time during the year, even if they reported no employees for December.

Source: Hawaii State Department of Labor and Industrial Relations, Employment and Payrolls in Hawaii (annual) and records.

Table 352.-- EMPLOYMENT AND PAYROLLS COVERED BY THE HAWAII EMPLOYMENT SECURITY LAW AND UNEMPLOYMENT COMPENSATION FOR FEDERAL EMPLOYEES, BY COUNTIES: 1988

County or island	Number of employers, Dec.	Average employment	Total wages ($1,000)	Average annual wage (dollars)
INCLUDING GOVERNMENT				
State total	24,787	484,483	9,909,719	20,454
City and Co. of Honolulu .	18,184	377,979	8,012,596	21,199
Hawaii County	2,758	40,085	711,148	17,741
Kauai County	1,260	22,178	388,207	17,504
Maui County	2,591	44,241	797,767	18,032
EXCLUDING GOVERNMENT				
State total	24,781	389,024	7,564,054	19,444
City and Co. of Honolulu .	18,181	298,531	6,042,523	20,241
Hawaii County	2,755	32,329	531,693	16,446
Kauai County	1,257	19,124	314,525	16,447
Maui County	2,588	39,040	675,313	17,298

Source: Hawaii State Department of Labor and Industrial Relations, 1988 Employment and Payrolls in Hawaii (September 1989).

Table 353.-- EMPLOYMENT AND PAYROLLS COVERED BY THE HAWAII EMPLOYMENT SECURITY LAW AND UNEMPLOYMENT COMPENSATION FOR FEDERAL EMPLOYEES, BY INDUSTRY: 1988

Industry	Number of employers, Dec.	Average employment	Total wages ($1,000)	Average annual wage (dollars)
All industries	24,787	484,483	9,909,719	20,454
Government	6	95,459	2,345,665	24,572
Federal	1	33,783	950,402	28,133
State	1	47,817	1,057,285	22,111
County	4	13,859	337,978	24,387
Private	24,781	389,024	7,564,054	19,444
Agriculture, forestry, fisheries	570	12,140	222,486	18,327
Sugar	18	3,889	85,474	21,978
Pineapple	5	1,894	38,805	20,489
Other	547	6,357	98,207	15,449
Mining and contract construction	2,287	23,292	738,419	31,703
Manufacturing	928	21,711	468,916	21,598
Sugar mills	12	2,627	58,584	22,301
Pineapple canning	2	2,022	41,744	20,645
Other food processing	209	5,000	94,911	18,982
Other manufacturing	705	12,062	273,677	22,689
Transportation	1,062	28,051	639,164	22,786
Communications	105	7,567	240,762	31,817
Utilities	38	2,680	108,415	40,454
Wholesale trade	2,099	20,633	485,134	23,513
Retail trade	5,479	106,902	1,349,013	12,619
Eating and drinking places	1,921	44,605	429,107	9,620
Other retail trade	3,558	62,297	919,906	14,766
Finance, insurance, real estate	3,238	34,752	807,808	23,245
Services	8,951	131,237	2,502,550	19,069
Hotels, rooming houses, etc.	232	34,259	570,310	16,647
Health services	1,940	25,846	700,777	27,114
Other services	6,779	71,132	1,231,463	17,312
Nonclassifiable establishments	24	61	1,388	22,761

Source: Hawaii State Department of Labor and Industrial Relations, *1988 Employment and Payrolls in Hawaii* (September 1989), pp. 5-6.

Table 354.-- AVERAGE ANNUAL WAGE FOR EMPLOYEES COVERED BY THE HAWAII EMPLOYMENT SECURITY LAW AND UNEMPLOYMENT COMPENSATION FOR FEDERAL EMPLOYEES, IN CURRENT AND CONSTANT DOLLARS, BY CLASS OF WORKER: 1978 AND 1988

Class of worker	1978: current dollars	1988		Percent change, 1978-1988	
		Current dollars	1978 dollars 1/	Current dollars	1978 dollars 1/
All classes ..	11,630	20,454	11,245	75.9	-3.3
Federal	18,409	28,133	15,466	52.8	-16.0
State 2/	12,414	22,111	12,156	78.1	-2.1
County	12,512	24,387	13,407	94.9	+7.2
Private	10,802	19,444	10,689	80.0	-1.0

1/ Deflated by the all-items consumer price index (CPI-U) for Honolulu. The all-items index increased 81.9 percent during this period.

2/ Average for 1978 is understated because of erroneous inclusion of uncovered student workers, omitted in 1988 data.

Source: Hawaii State Department of Labor and Industrial Relations, Employment and Payrolls in Hawaii (annual).

Table 355.-- NONGOVERNMENTAL REPORTING UNITS AND EMPLOYMENT, BY SIZE OF FIRM: DECEMBER 1988

Subject	All units	Employment-size class					
		1 to 4	5 to 9	10 to 19	20 to 49	50 to 99	100 or more
Reporting units ..	24,781	13,595	4,719	3,129	1,989	720	629
Employment	401,818	23,116	30,964	42,207	60,046	49,815	195,670

Source: Hawaii State Department of Labor and Industrial Relations, 1988 Employment and Payrolls in Hawaii (September 1989), p. 19.

Table 356.-- ANNUAL WAGES PER EMPLOYEE, TOTAL AND PRIVATE: 1978 TO 1988

Year	Annual wages per employee (dollars)		Hawaii as percent of U.S.		Rank 1/	
	Total	Private only	Total	Private only	Total	Private only
1978	11,607	10,809	95.8	89.7	29	33
1979	12,335	11,700	94.1	89.4	27	34
1980	13,491	12,695	94.2	88.6	27	37
1981	14,411	13,567	92.2	86.9	32	41
1982	15,353	14,202	92.0	85.5	31	42
1983	16,108	14,898	92.1	85.8	30	40
1984	16,701	15,456	91.0	85.0	31	41
1985	17,329	16,064	90.3	84.7	31	40
1986	18,101	16,907	90.7	85.6	31	38
1987	19,091	18,024	91.5	87.4	25	35
1988	20,444	19,437	93.5	89.8	22	27

1/ Among 50 States and D.C.
Source: U.S. Bureau of Labor Statistics, Employment and Wages, Annual Averages (annual report).

Table 357.--MINIMUM WAGE CHRONOLOGY: 1942 TO 1989

[Dollars per hour. As of July 1, unless otherwise specified]

Effective date	Oahu	Other islands	Effective date	State	Effective date	State
1942 1/ ..	0.25	0.20	1958	1.00	1975	2.40
1943	0.30	0.25	1962	1.15	1978	2.65
1945	0.40	0.40	1964 2/ ..	1.25	1979	2.90
1953	0.65	0.55	1969	1.40	1980	3.10
1955	0.75	0.65	1970	1.60	1981	3.35
1957	0.90	0.85	1974	2.00	1988 2/ ..	3.85

1/ At inception of minimum wage law, April 1, 1942.
2/ January 1.
Source: Hawaii State Department of Labor and Industrial Relations, records.

Table 358.-- HOURS AND EARNINGS IN SPECIFIED INDUSTRIES: ANNUAL AVERAGES, 1983 TO 1988

Subject	1983	1984	1985	1986	1987	1988
Average weekly earnings (dollars)						
Contract construction	587.76	607.37	627.32	642.80	679.30	710.22
Manufacturing	317.68	318.14	323.51	344.65	366.42	392.58
Food and kindred products ..	291.65	292.98	303.32	321.40	341.01	362.50
Communication and utilities ..	486.22	512.09	542.15	582.15	608.75	653.71
Trade 1/	225.12	225.72	228.72	231.62	235.95	249.93
Wholesale trade	302.13	309.75	311.04	326.10	328.90	356.13
Retail trade 1/	199.69	198.13	200.95	200.26	206.30	216.34
Banking & credit agencies	237.73	237.78	267.80	291.78	297.11	303.58
Hotels	222.95	234.57	243.42	259.38	265.22	279.53
Average weekly hours						
Contract construction	37.2	36.9	36.6	36.9	38.4	38.0
Manufacturing	38.6	38.1	37.4	38.9	39.4	40.1
Food and kindred products ..	39.2	38.0	36.9	39.1	40.5	41.1
Communication and utilities ..	41.7	41.0	41.8	42.4	42.6	44.5
Trade 1/	33.4	33.0	33.1	32.9	32.5	32.5
Wholesale trade	38.1	38.1	38.4	38.5	38.2	38.5
Retail trade 1/	31.9	31.3	31.3	31.0	30.7	30.6
Banking & credit agencies	...	38.6	38.7	38.8	37.8	37.9
Hotels	32.5	33.8	33.3	34.4	33.7	33.8
Average hourly earnings (dollars)						
Contract construction	15.80	16.46	17.14	17.42	17.69	18.69
Manufacturing	8.23	8.35	8.65	8.86	9.30	9.79
Food and kindred products ..	7.44	7.71	8.22	8.22	8.42	8.82
Communication and utilities ..	11.66	12.49	12.97	13.73	14.29	14.69
Trade 1/	6.74	6.84	6.91	7.04	7.26	7.69
Wholesale trade	7.93	8.13	8.10	8.47	8.61	9.25
Retail trade 1/	6.26	6.33	6.42	6.46	6.72	7.07
Banking & credit agencies	...	6.16	6.92	7.52	7.86	8.01
Hotels	6.86	6.94	7.31	7.54	7.87	8.27

1/ Excludes eating and drinking establishments.

Source: Hawaii State Department of Labor and Industrial Relations, Labor Force Data Book (March 1978), as revised annually through April 1989.

Table 359.-- AVERAGE PAY RATES FOR SELECTED JOB CLASSIFICATIONS IN PRIVATE INDUSTRY: 1984 TO 1989

Job classification	1984	1985	1986	1987	1988	1989
MONTHLY RATES						
Junior typist	1,013	1,036	1,084	1,103	1,224	1,279
Clerk-stenographer	1,296	1,384	1,485	1,583	1,581	1,769
Secretary	1,341	1,407	1,461	1,516	1,597	1,680
Data entry operator	1,134	1,139	1,194	1,218	1,254	1,333
Bookkeeper, full-charge	1,647	1,707	1,794	1,865	2,034	1,914
Engineering drafting technician	1,898	1,952	1,891	2,049	2,057	2,216
Hospital attendant	1,057	1,101	1,135	1,171	1,232	1,306
Staff nurse	1,978	2,081	2,159	2,287	2,534	2,746
HOURLY RATES						
Housekeeper	5.806	6.078	6.412	6.714	7.183	7.503
Cook, general	8.308	8.626	8.950	8.747	9.074	9.082
Waiter/waitress	3.586	3.676	3.846	3.866	4.212	4.259
Laborer (light)	6.688	6.959	7.187	7.399	7.521	7.672
Carpenter (maintenance)	9.769	10.139	10.405	10.768	11.156	11.701
Electrician (maintenance)	11.243	11.529	12.191	12.486	13.148	13.447
Automotive mechanic	10.152	10.191	10.753	11.154	11.531	11.872
Truck driver (1.5-5 tons)	8.576	8.853	8.734	9.783	10.159	10.664

Source: Hawaii Employers Council, *Pay Rates in Hawaii* (annual).

Table 360.-- AVERAGE PAY RATES FOR SELECTED JOB CLASSIFICATIONS IN PRIVATE INDUSTRY, BY COUNTIES OR ISLANDS: 1989

[In dollars]

Job classification and year	State average	Kauai	Oahu	Maui County	Hawaii County
MONTHLY RATES					
Junior typist	1,279	...	1,280	...	...
Clerk-stenographer	1,769	...	1,743	...	...
Secretary	1,680	1,596	1,679	1,784	1,518
Data entry operator	1,333	...	1,330	...	...
Bookkeeper, full-charge	1,914	...	1,921	...	...
Engineering drafting technician	2,216	...	2,214	...	...
Hospital attendant	1,306	1,378	1,314	1,212	...
Staff nurse	2,746	2,701	2,752	2,476	2,774
HOURLY RATES					
Housekeeper	7.503	7.615	7.490	7.620	7.270
Cook, general	9.082	11.063	8.762	11.356	...
Waiter/waitress	4.259	4.548	4.150	4.640	4.380
Laborer (light)	7.672	8.041	7.683	7.661	6.970
Carpenter (maintenance)	11.701	11.492	11.942	12.319	9.520
Electrician (maintenance)	13.447	11.855	13.682	13.017	15.511
Automotive mechanic	11.872	10.606	12.674	12.021	10.900
Truck driver (1.5-5 tons)	10.664	...	11.260	9.062	9.129

Source: Hawaii Employers Council, Pay Rates in Hawaii (Special Publication No. 191, September 1989).

Table 361.-- MONTHLY AND HOURLY WAGE RATES FOR SPECIFIED JOB TITLES: 1989

[In dollars. Data are shown for only a few of the more than 6,000 job titles listed in the source, primarily to suggest the type of information and occupational detail available there]

Job title	Data source	Pay period	Wage range	
			Low	High
Accountant	Private	Monthly	1,000	2,686
Cannery/warehouse worker	Private	Hourly	5.25	6.80
Clerk, data entry	Private	Hourly	8.14	12.29
Engineer, civil	Local govt.	Monthly	1,818	5,533
Host/hostess	Private	Hourly	3.85	8.20
Laborer, general	Private	Hourly	3.85	15.45
Nurse, licensed practical	State govt.	Monthly	1,448	2,159
Police officer	Local govt.	Monthly	1,933	2,996
Professor	State govt.	Monthly	3,008	5,634
Stenographer	Private	Monthly	1,141	1,948

Source: Hawaii State Department of Labor and Industrial Relations, Selected Wage Information for Hawaii 1989 (November 1989).

Table 362.-- CASH COMPENSATION PAID TO EXECUTIVES OF MAJOR CORPORATIONS: 1987 AND 1988

Year	Total	Less than $250,000	$250,000 to $499,999	$500,000 to $999,999	$1,000,000 or more	Highest ($1,000)
1987	34	6	19	7	2	1,200
1988	29	3	16	8	2	1,500

Source: Sunday Star-Bulletin & Advertiser, April 17, 1988, p. B-4, and April 16, 1989, p. B-4.

Table 363.-- WEEKLY HOURS OF WORK, FOR CIVILIANS AT WORK: ANNUAL AVERAGES, 1980 TO 1988

Year	All civilians at work	Full-time schedules 1/	Year	All civilians at work	Full-time schedules 1/
1980 2/	37.0	43.0	1985	38.2	44.4
1981	36.7	43.0	1986	38.3	44.3
1982	37.4	43.1	1987	37.6	44.1
1983	37.9	43.2	1988	39.0	44.6
1984	37.8	43.5			

1/ Refers to persons who worked 35 hours or more during the survey week.

2/ Data for 1980 limited to nonagricultural wage and salary workers. Data on hours of work not available from this survey before 1980.

Source: U.S. Bureau of Labor Statistics, Geographic Profile of Employment and Unemployment (annual).

Table 364.-- WEEKLY HOURS OF WORK, FOR CIVILIAN WORKERS: ANNUAL AVERAGES; 1988

Hours of work	Civilian workers (1,000)	Age, sex, or race	Average hours
Total at work	474	Total at work	39.0
		Full-time schedules 1/ .	44.6
1 to 14 hours	18		
15 to 29 hours	63	Men	41.1
30 to 34 hours	38	Women	36.6
35 to 39 hours	23		
40 hours	214	Both sexes, 15 to 19 years	25.3
41 to 48 hours	34		
49 hours and over	84	White	39.4

1/ Refers to persons who worked 35 hours or more during the survey week.

Source: U.S. Bureau of Labor Statistics, Geographic Profile of Employment and Unemployment, 1988 (Bulletin 2327, May 1989), pp. 71-75.

Table 365.-- INTERSTATE MOVEMENT OF JOB-SEEKERS: 1983 TO 1988

Type of job-seeker	1983	1984	1985	1986	1987	1988
Island workers on Mainland 1/ ..	4,414	4,123	4,039	3,664	3,805	3,942
Mainland workers in Hawaii 2/ ..	4,659	4,219	3,993	3,932	3,161	2,974
Ratio 3/	106	102	99	107	83	80

1/ Interstate liable initial claims, excluding UCFE and UCX. Covers Hawaii workers seeking work and filing for benefits on Mainland. Includes Federal civilian employees and ex-servicemen.

2/ Interstate agent initial claims (UI), excluding UCFE and UCX. Covers Mainland workers filing claims for unemployment insurance and registered for work with the Hawaii State Employment Service.

3/ Interstate agent initial claims per 100 interstate liable initial claims. Ratios under 100 suggest a net out-migration of workers.

Source: Hawaii State Department of Labor and Industrial Relations, Unemployment Insurance Fact Book, 1970 to the Present, Hawaii (February 1989), p. 15.

Table 366.-- WORK DISABILITY STATUS OF NONINSTITUTIONAL CIVILIANS 18 TO 64 YEARS OLD, BY SEX: 1980

[For selected characteristics of these groups, see Data Book 1987, table 394]

Work disability	Total	Male	Female
Total, 18 to 64 years	552,928	259,580	293,348
With no work disability	517,083	240,362	276,721
With a work disability	35,845	19,218	16,627
Not prevented from working	19,589	11,422	8,167
Prevented from working	16,256	7,796	8,460

Source: U.S. Bureau of the Census, 1980 Census of Population, Selected Characteristics of Persons With a Work Disability by State: 1980, PC80-S1-20 (November 1985), pp. 58-59.

Table 367.-- RECORDABLE OCCUPATIONAL INJURIES AND ILLNESSES OF NONGOVERNMENTAL WORKERS: 1987

[Data exclude agricultural employers with fewer than 11 employees]

Subject	Total	Injuries	Illnesses
Recordable cases	28,881	28,345	536
Per 100 full-time workers	9.8	9.6	0.2
Lost workday cases	15,601	15,395	206
Lost workdays	259,686	255,938	3,748
Per lost workday case	17	17	18
Nonfatal cases without lost workdays.	13,269	12,942	327
Number of recordable cases:			
Agriculture, forestry, fishing	1,383	1,338	45
Mining	27	24	3
Construction	3,889	3,827	62
Manufacturing	2,434	2,403	31
Transportation, public utilities	3,380	3,348	32
Wholesale and retail trade	8,704	8,586	118
Finance, insurance, real estate	891	838	53
Services	8,173	7,981	192
Incidence per 100 full-time workers .			
Agriculture, forestry, fishing	15.6	15.1	0.5
Mining	6.1	5.4	0.7
Construction	21.8	21.4	0.3
Manufacturing	12.0	11.9	0.2
Transportation, public utilities	10.6	10.5	0.1
Wholesale and retail trade	9.4	9.3	0.1
Finance, insurance, real estate	3.0	2.8	0.2
Services	8.7	8.5	0.2

Source: Hawaii State Department of Labor and Industrial Relations, 1987 Occupational Injuries and Illnesses Survey, State of Hawaii, p. 4.

Table 368.-- WORK INJURIES, DEATHS, TIME LOST, AND COMPENSATION COSTS: 1983 TO 1988

Year	Reported cases	Reported deaths	Time lost (compensated days)	Compensation costs ($1,000)
1983 ...	39,013	48	1,141,746	103,338
1984 ...	38,755	35	1,307,011	122,454
1985 ...	37,940	49	1,262,513	136,837
1986 ...	39,390	47	1,067,462	127,367
1987 ...	43,108	45	1,266,460	159,196
1988 ...	50,101	46	1,445,052	178,930

Source: Hawaii State Department of Labor and Industrial Relations, Work Injury Statistics (annual).

Table 369.-- LABOR UNIONS AND EMPLOYEE ASSOCIATIONS: 1987-1988

Subject	Total	AFL-CIO affiliated	Independent
Unions and associations ...	69	47	22
Membership 1/	154,000	95,000	59,000

1/ Data exclude 9 unions and associations not reporting membership.

Source: Hawaii State Department of Labor and Industrial Relations, Labor Organizations & Affiliates, 1987-1988.

Table 370.-- COLLECTIVE BARGAINING AGREEMENTS: 1984 TO 1989

[Covers collective bargaining agreements subject to wage negotiations]

Year	Number of agreements	Workers covered		Duration over 2 years (percent)	
		Total	Per agreement	Agreements	Workers
1984	901	26,200	29	93.7	76.7
1985	350	58,450	167	74.3	11.7
1986	138	13,550	98	60.2	44.1
1987	1,375	80,400	58	96.4	42.9
1988	433	16,290	38	88.7	52.5
1989	104	50,950	490	76.9	14.9

Source: Helene S. Tanimoto, Duration of Collective Bargaining Agreements in Hawaii, 1989 (University of Hawaii at Manoa, Industrial Relations Center, Occasional Publication No. 163, January 1989).

Table 371.-- STATE AND COUNTY EMPLOYEES IN COLLECTIVE BARGAINING UNITS BY EMPLOYING JURISDICTION: 1986 TO 1988

[Unless otherwise specified, as of December 31]

Employing jurisdiction	1986	1987	1988
Total	42,907	44,275	45,172
State of Hawaii	18,952	19,470	19,690
City and County of Honolulu	7,418	1/ 7,736	7,822
County of Hawaii	1,346	1,407	1,434
County of Maui	1,028	1,053	1,106
County of Kauai	674	727	640
Dept. of Education	9,787	10,128	10,592
University of Hawaii	3,702	3,754	3,888

1/ As of February 29, 1988.

Source: Hawaii Labor Relations Board, HLRB Information Bulletin, No. 26, March 6, 1989, and earlier issues.

Table 372.-- WORK STOPPAGES: 1983 TO 1988

[Data exclude stoppages lasting less than one full shift (8 hours) and stoppages affecting fewer than 6 workers. Data are limited to stoppages begun or in progress during the week containing the 12th of each month]

Year	Number of stoppages 1/	Workers involved 1/	Man-days lost 2/
1983	7	2,838	44,411
1984	6	2,063	123,486
1985	9	1,990	32,257
1986	6	1,266	49,533
1987	4	99	14,392
1988	6	410	25,057

1/ Stoppages carrying over from previous year are counted in both years.

2/ Partly estimated.

Source: Hawaii State Department of Labor and Industrial Relations, Research and Statistics Office, records.

Table 373.-- WORK STOPPAGES INVOLVING 1,000 OR MORE WORKERS: 1983 TO 1988

Year	Number of stoppages begun in year	Workers involved 1/	Man-days idle during year	Percent of estimated nonagricultural working time
1983	1	2,800	5,600	0.01
1984	1	1,000	70,000	0.01
1985	1	1,000	11,000	0.01
1986	-	-	-	0
1987	-	-	-	0
1988	-	-	-	0

1/ Workers counted more than once if involved in more than one stoppage during year.

Source: U.S. Department of Labor, Bureau of Labor Statistics, records.

Section 13

INCOME, EXPENDITURES, AND WEALTH

This section presents statistics on two different aspects of income and expenditures, one relating to the state income and product system and the other to the distribution of income to families, households and individuals. Specifically, information is given on gross state product, income by industry, personal, family and household income, poverty, personal wealth, and family expenditures. Data on wage rates, salaries, and earnings appear in Sections 3, 9, 12, and 22; on industrial payrolls, in Sections 12, 15, and 20 through 23; on the family income of visitors, in Section 7; on retirement payments and public assistance, in Sections 10 and 11; on taxable income, in Section 9.

Gross state product in 1988 was about $21 billion. The major sources of outside income to Hawaii in 1988 were defense expenditures ($1.9 billion), pineapple production ($247 million), sugar production ($324 million), and visitor expenditures ($9.2 billion). Personal income in 1988 was $18.4 billion, compared with $8.0 billion only ten years earlier, and per capita personal income was $16,800, almost twice the 1978 level. The per capita figure for Hawaii was slightly above the national average, but not high enough to compensate for the Islands' much higher cost of living. The median annual income of families, based on data for 1987, was $39,000; for unrelated individuals, the median was $14,900. The official poverty threshold for a 4-person family in Hawaii was set in February 1989 at $13,920. In 1987, 7.3 percent of Island families and 18.1 percent of unrelated individuals were below the poverty level. The most recent family expenditure survey, taken in 1984 and 1985, reported that the largest items in the family budget on Oahu were housing (accounting for 27.9 percent of total spending), transportation (18.9 percent), and food (17.5 percent). Top wealthholders in 1982 included 20,300 persons with assets of $325,000 or more.

The chief sources of data shown in this section are the U.S. Bureau of Economic Analysis, U.S. Bureau of the Census, U.S. Bureau of Labor Statistics, U.S. Department of Health and Human Services, Internal Revenue Service, Hawaii Agricultural Statistics Service, Hawaii State Department of Business and Economic Development, and Hawaii Visitors Bureau. Sections 6 and 7 of Historical Statistics of Hawaii present data for earlier years. Comparable data for the country as a whole are given in Statistical Abstract of the United States: 1989, Section 14.

Table 374.-- DIRECT INCOME FROM MAJOR EXPORT INDUSTRIES: 1970 TO 1988

[In millions of dollars]

Year	Total for four major industries	Value of production		Defense expendi-tures 2/	Visitor expendi-tures 3/
		Raw sugar and molasses 1/	Fresh and processed pineapple		
1970 ...	1,561	187.8	138.6	639.4	595
1971 ...	1,758	202.9	141.4	708.8	705
1972 ...	1,914	184.7	145.4	744.2	840
1973 ...	2,226	222.2	142.4	840.9	1,020
1974 ...	2,927	676.6	127.1	897.9	1,225
1975 ...	2,846	366.1	136.7	982.8	1,360
1976 ...	3,076	257.0	144.5	1,034.2	1,640
1977 ...	3,320	226.8	161.6	1,086.6	1,845
1978 ...	3,750	285.2	162.8	1,155.5	2,146
1979 ...	4,311	345.7	206.4	1,221.8	2,537
1980 ...	5,013	594.1	226.5	1,317.4	2,875
1981 ...	5,195	327.9	217.6	1,449.3	3,200
1982 ...	5,951	351.5	206.0	1,693.4	3,700
1983 ...	6,451	410.2	219.0	1,848.2	3,974
1984 ...	7,092	393.0	249.6	1,867.2	4,582
1985 ...	7,429	340.8	222.5	1,965.4	4,900
1986 ...	7,935	361.9	238.4	1,784.9	5,550
1987 ...	9,043	335.9	251.4	1,857.0	4/ 6,600
1988 ...	11,663	324.0	247.0	1,892.4	4/ 9,200

1/ Excludes government sugar support payments.

2/ Does not include military retired pay, Hawaii National Guard expenditures, or U.S. Army Corps of Engineers contracts. Data for 1986 and 1987 are partly estimated.

3/ Direct visitor expenditures in Hawaii, exclusive of transpacific transportation and expenditures of carriers and crews.

4/ Preliminary estimate, subject to extensive revision.

Source: Hawaii Agricultural Statistics Service, Statistics of Hawaiian Agriculture (annual) and records; data supplied to DBED by armed forces; Hawaii Visitors Bureau, 1988 Westbound Visitors to Hawaii, table 1.

Table 375.-- GROSS STATE PRODUCT AND PER CAPITA GROSS STATE PRODUCT: 1958 TO 1988

Year	Gross state product		Per capita gross state product	
	Millions of current dollars	Millions of 1982 dollars	Current dollars	1982 dollars
1958	1,415.0	4,152.3	2,337	6,859
1959	1,572.5	4,632.4	2,528	7,447
1960	1,805.1	5,248.1	2,814	8,181
1961	1,886.5	5,250.0	2,864	7,970
1962	1,965.8	5,471.0	2,876	8,004
1963	2,101.8	5,606.2	3,081	8,217
1964	2,301.3	6,167.5	3,288	8,813
1965	2,530.4	6,714.3	3,595	9,540
1966	2,771.4	7,083.5	3,902	9,972
1967	2,990.0	7,329.4	4,138	10,144
1968	3,344.5	7,932.5	4,554	10,800
1969	3,952.3	8,905.6	5,268	11,871
1970	4,414.0	9,324.6	5,720	12,084
1971	4,773.8	9,806.5	5,955	12,233
1972	5,305.4	10,464.5	6,405	12,633
1973	6,009.3	10,982.4	7,057	12,896
1974	6,901.7	10,948.5	7,951	12,614
1975	7,411.3	11,596.6	8,363	13,086
1976	7,933.4	11,746.4	8,774	12,991
1977	8,597.4	12,103.3	9,363	13,181
1978	9,627.6	12,482.9	10,335	13,400
1979	10,906.4	12,972.1	11,441	13,608
1980	12,225.7	13,690.5	12,619	14,131
1981	13,078.3	14,022.5	13,343	14,306
1982	13,691.0	13,691.0	13,725	13,725
1983	14,811.8	14,210.0	14,541	13,950
1984	15,826.5	14,637.0	15,276	14,128
1985	16,813.8	15,046.4	15,991	14,310
1986	18,036.2	15,738.4	16,958	14,797
1987	19,713.1	16,460.9	18,219	15,213
1988	21,587.4	17,332.7	19,657	15,783

Source: Follows table 381.

Table 376.-- EXPENDITURES ON GROSS STATE PRODUCT: 1986 TO 1988

[In millions of dollars]

Item	1986	1987	1988
Gross state product	18,036.2	19,713.1	21,587.4
Personal consumption expenditures 1/	11,400.6	12,401.8	13,527.1
Goods	8,211.6	8,934.8	9,747.8
Durables	2,360.4	2,577.0	2,820.4
Non-durables	5,851.1	6,357.8	6,927.4
Services	3,189.1	3,467.0	3,779.4
Gross private domestic investment	2,090.4	2,538.0	3,054.0
Fixed investment	2,024.5	2,466.3	2,975.8
Non-residential	1,410.8	1,668.2	1,975.8
Structures	705.4	811.2	928.9
Producers' durable equipment	705.4	857.0	1,046.9
Residential	613.7	798.1	1,000.0
Change in inventories	65.9	71.7	78.2
Government purchases of goods and services	5,851.3	6,161.4	6,524.3
State and local	2,717.7	2,962.5	3,245.1
Compensation of employees	1,500.2	1,631.3	1,778.7
Purchases from business	1,217.5	1,331.2	1,466.4
Construction	297.3	338.9	379.9
Other current equipment	920.2	992.3	1,086.5
Federal	3,133.6	3,198.9	3,279.2
Defense	2,866.3	2,923.6	2,987.9
Non-defense	267.3	275.3	291.3
Net exports	-1,452.4	-1,383.3	-1,638.1
Exports	9,264.9	10,603.4	12,188.3
Commodities (Merchandise)	1,389.8	1,445.3	1,503.2
Services and income from investments	2,353.2	2,533.1	2,745.1
Visitor and crew expenditures	5,522.0	6,625.0	7,940.0
Less: Imports	10,717.4	11,988.7	13,826.4
Commodities (Merchandise)	7,718.5	8,604.6	9,908.0
Services and income from investments	2,669.3	3,023.8	3,519.6
Out-of-state expenditures by Hawaii residents	329.6	360.4	398.9
Discrepancy and omissions	146.3	-2.9	120.1

1/ Purchases by Hawaii residents.
Source follows table 381.

Table 377.-- GROSS STATE (DOMESTIC) PRODUCT, BY INDUSTRY: 1963 TO 1986

[Money amounts in millions of dollars]

Item	1963	1967	1972	1977	1982
Total gross state (domestic) product	2,170	3,066	5,390	9,037	14,259
Farms	139	132	160	205	325
Agric. services, forestry, fisheries	7	10	18	32	49
Mining	1	0	5	0	2
Construction	143	214	416	566	892
Manufacturing	202	231	328	562	713
Durable goods	34	45	79	153	110
Nondurable goods	168	187	250	409	603
Transportation and public utilities	190	308	532	922	1,389
Wholesale trade	161	212	319	447	634
Retail trade	207	320	555	1,035	1,608
Finance, insurance, and real estate	294	459	784	1,460	2,388
Services	240	383	774	1,444	2,574
Federal civilian government	202	288	423	590	932
Federal military	224	257	628	964	1,532
State and local government	161	252	449	810	1,220

Item	1983	1984	1985	1986	
				Number	Pct.
Total gross state (domestic) product	15,533	16,724	17,994	19,320	100.0
Farms	336	355	377	386	2.0
Agric. services, forestry, fisheries	57	60	62	68	0.4
Mining	4	3	3	2	(Z)
Construction	987	948	1,036	1,183	6.1
Manufacturing	736	866	944	1,000	5.2
Durable goods	127	130	143	154	0.8
Nondurable goods	609	736	801	847	4.4
Transportation and public utilities	1,517	1,682	1,783	1,911	9.9
Wholesale trade	661	748	803	841	4.4
Retail trade	1,739	1,891	2,036	2,151	11.1
Finance, insurance, and real estate	2,670	2,775	3,022	3,398	17.6
Services	2,930	3,248	3,509	3,823	19.8
Federal civilian government	1,015	1,110	1,184	1,182	6.1
Federal military	1,588	1,689	1,813	1,848	9.6
State and local government	1,292	1,349	1,423	1,526	7.9

Z Less than 0.05 percent.

Source: U.S. Department of Commerce, Survey of Current Business, 'Gross State Product, By Industry: 1963-86," May 1988.

Table 378.-- CHARGES AGAINST GROSS STATE PRODUCT: 1986 TO 1988

[In millions of dollars]

Item	1986	1987	1988
Charges against gross state product	18,036.2	19,713.1	21,587.4
Compensation of employees	11,754.5	12,852.5	14,079.7
Wages and salaries	9,781.5	10,673.0	11,706.0
Supplements to wages and salaries	1,973.0	2,179.5	2,373.7
Employers' contributions for social ins. ...	1,131.0	1,237.5	1,357.7
State programs	202.9	230.8	259.0
Federal programs	928.1	1,006.7	1,098.8
Other labor income	842.0	942.0	1,016.0
Proprietors' income	1,219.0	1,303.0	1,404.0
Rental and net interest income	1,655.0	1,716.9	1,895.1
Corporate profits before tax	690.9	815.7	906.5
Profit tax	201.2	242.3	263.1
State	46.2	67.3	63.1
Federal	155.0	175.0	200.0
Profits after tax	489.7	573.4	643.4
Dividends	345.0	383.2	410.3
Undistributed profits	144.7	190.2	233.2
Net interest	(NA)	(NA)	(NA)
State income	15,319.3	16,688.1	18,285.4
Business transfer payments	98.6	109.6	122.6
To persons	71.6	81.3	92.8
To non-profit institutions	27.0	28.3	29.8
Indirect business tax and non-tax, state and local	1,434.4	1,671.1	1,881.7
Subsidies less surplus of state and local government enterprises	-20.8	-22.2	-23.5
Indirect tax and non-tax, Federal	-80.1	83.4	87.2
Subsidies less surplus of Federal government enterprises	-88.1	-95.0	-101.7
Charges against net state product	17,041.4	18,669.4	20,502.0
Capital consumption allowances	994.8	1,032.7	1,085.4

Source follows table 381.

Table 379.-- RESIDENT PERSONAL CONSUMPTION EXPENDITURES: 1986 TO 1988

[In millions of dollars]

Item	1986	1987	1988
Personal consumption expenditures	11,400.6	12,401.8	13,527.1
Food, alcoholic beverages and tobacco	2,622.1	2,864.8	3,124.8
Clothing, accessories and jewelry	524.4	570.5	622.2
Personal care	114.0	124.0	135.3
Housing	1,960.9	2,145.5	2,340.2
Household operation	1,219.9	1,339.4	1,460.9
Medical care	1,209.5	1,338.7	1,440.7
Personal business	1,014.7	1,041.8	1,136.3
Transportation	1,288.3	1,413.8	1,555.6
Recreation	832.2	905.3	987.5
Private education and research	136.8	136.4	148.8
Religious and welfare activities	148.2	161.2	175.9
Out-of-State expenditures of residents	329.6	360.4	398.9

Source follows table 381.

Table 380.-- HAWAII'S EXPORTS AND IMPORTS OF GOODS AND SERVICES: 1986 TO 1988

[In millions of dollars]

Classification	1986	1987	1988
Hawaii's exports of goods and services 1/	9,264.9	10,603.4	12,188.3
Merchandise exports	1,389.8	1,445.3	1,503.2
Primary	514.1	491.7	496.7
Sugar and molasses	317.7	296.1	285.1
Pineapple	196.4	195.6	211.6
Secondary	162.8	170.4	181.5
Garments	50.0	45.0	47.2
Canned tuna	10.1	-	-
Flowers	27.0	30.1	32.8
Papaya	7.9	8.3	9.8
Macadamia nuts and coffee	22.2	22.6	26.0
All other	45.6	64.4	65.7
Miscellaneous	712.9	783.2	825.0
Other processed foods and feeds	25.0	26.3	28.1
Fuels and petroleum products	164.0	178.3	191.6
All other	523.9	578.7	605.3
Services and income from investments	2,353.2	2,533.1	2,745.1
Visitors and crew expenditures	5,522.0	6,625.0	7,940.0
Hawaii's imports of goods and services	10,717.4	11,988.7	13,826.4
Merchandise imports	7,718.5	8,604.6	9,908.0
Domestic	6,120.8	6,685.8	7,510.3
Domestic, waterborne	5,819.8	6,376.0	7,173.4
Domestic, airborne	301.0	309.8	336.9
Foreign, total	1,597.7	1,918.8	2,397.7
Services and income from investments	2,669.3	3,023.8	3,519.6
Out-of-State expenditures by Hawaii residents	329.6	360.4	398.9

1/ Not available separately for foreign and domestic exports.
Source follows table 381.

Table 381.-- SUMMARY OF GOVERNMENT ACCOUNTS, STATE AND LOCAL, AND FEDERAL: 1986 TO 1988

[In millions of dollars]

Item	1986	1987	1988
Total revenues, State and local	3,253.0	3,716.4	4,178.9
State and local tax and non-tax	2,715.6	3,166.1	3,581.3
Personal tax and non-tax	931.8	1,082.7	1,249.4
Corporate profits tax	46.2	67.3	63.1
Indirect business tax and non-tax	1,434.4	1,671.1	1,881.7
Contributions to social insurance programs	303.2	345.0	387.1
Federal grants-in-aid	537.4	550.3	597.6
Total expenditures, State and local	2,873.0	3,179.5	3,469.8
Purchases of goods and services	2,717.7	2,962.5	3,245.1
Transfer payments to persons	309.0	323.2	346.1
Net interest paid	-132.9	-84.0	-97.9
Interest paid (by government)	237.0	248.9	252.6
Less: Interest received (by government)	369.9	332.9	350.5
Subsidies less current surplus of gov. ent.	-20.8	-22.2	-23.5
Surplus or deficit (-), State & local	380.0	536.9	709.1
Total revenues, Federal	5,384.8	5,538.7	5,792.7
Federal tax and non-tax revenues	2,390.1	2,640.1	2,927.0
Personal tax and non-tax	565.5	657.1	758.3
Corporate profits tax	155.0	175.0	200.0
Indirect business tax and non-tax	80.1	83.4	87.2
Contributions for social insurance programs	1,589.5	1,724.6	1,881.5
Transfers from Federal gov. in Washington, D.C.	2,994.7	2,898.6	2,865.7
Total expenditures, Federal	5,384.8	5,538.7	5,792.7
Purchases of goods and services	3,133.6	3,198.9	3,279.2
Transfer payments to persons	1,787.6	1,869.8	2,002.6
Grants-in-aid to State and local government	537.4	550.3	597.6
Net interest paid (to persons)	14.3	14.7	15.0
Subsidies less current surplus of gov. ent.	-88.1	-95.0	-101.7

Source: Hawaii State Department of Business and Economic Development, Hawaii Gross State Product Accounts: 1958 to 1985; Summary Estimates: 1986, 1987, and 1988 (1989).

Table 382.-- INCOME PROJECTIONS: 1985 TO 2010

[Constant 1982 dollars. Series M-K projections, developed by DBED]

Year	Gross State product (billions)	Personal income (billions)	Per capita personal income (dollars)
1985	15.1	13.0	12,400
1990	18.3	15.5	13,600
1995	21.7	18.0	14,700
2000	24.7	20.1	15,600
2005	27.5	21.9	16,200
2010	30.4	24.1	16,800

Source: Hawaii State Department of Business and Economic Development, Population and Economic Projections for the State of Hawaii to 2010 (Series M-K) (November 1988), p. 9 and underlying data.

Table 383.-- PERSONAL INCOME PROJECTIONS, TOTAL AND PER CAPITA, BY COUNTIES: 1990, 2000, AND 2010

[Series M-K projections developed by DBED]

Subject	Total personal income (millions of 1982 dollars)			Per capita personal income (1982 dollars)		
	1990	2000	2010	1990	2000	2010
State total	15,509.1	20,094.0	24,122.1	13,600	15,600	16,800
Honolulu	12,355.6	15,408.1	17,785.6	14,300	16,500	17,800
Hawaii	1,327.6	1,964.9	2,811.8	10,700	12,300	13,600
Kauai	629.7	945.3	1,276.9	11,600	13,900	15,100
Maui	1,196.3	1,775.7	2,247.7	12,400	14,300	15,500

Source: Hawaii State Department of Business and Economic Development, Population and Economic Projections for the State of Hawaii to 2010 (Series M-K) (November 1988), pp. 9-13.

Table 384.-- TOTAL AND PER CAPITA PERSONAL INCOME AND DISPOSABLE PERSONAL INCOME: 1960 TO 1988

[Revised from *Data Book 1988*, table 408]

Year	Personal income (millions of dollars)		Per capita personal income (dollars)		Per capita personal income as percent of U.S. average	
	Total	Disposable	Total	Disposable	Total	Disposable
1960 ...	1,466	1,243	2,350	1,992	104	101
1961 ...	1,584	1,337	2,464	2,080	107	103
1962 ...	1,695	1,454	2,595	2,226	107	105
1963 ...	1,806	1,553	2,692	2,315	107	106
1964 ...	1,962	1,712	2,894	2,525	109	108
1965 ...	2,153	1,888	3,085	2,705	109	108
1966 ...	2,359	2,039	3,385	2,926	111	110
1967 ...	2,565	2,216	3,624	3,129	112	111
1968 ...	2,874	2,453	3,998	3,412	114	112
1969 ...	3,277	2,747	4,411	3,698	116	114
1970 ...	3,772	3,191	4,944	4,182	122	120
1971 ...	4,060	3,478	5,129	4,394	119	118
1972 ...	4,473	3,780	5,468	4,620	117	116
1973 ...	4,967	4,204	5,901	4,993	114	112
1974 ...	5,702	4,861	6,645	5,665	118	117
1975 ...	6,159	5,374	7,038	6,141	116	116
1976 ...	6,670	5,783	7,474	6,480	112	113
1977 ...	7,210	6,213	7,873	6,784	108	108
1978 ...	8,043	6,898	8,660	7,427	106	107
1979 ...	9,031	7,711	9,506	8,116	105	106
1980 ...	10,279	8,776	10,617	9,065	107	108
1981 ...	11,051	9,418	11,274	9,608	103	104
1982 ...	11,732	10,213	11,760	10,237	102	105
1983 ...	12,875	11,100	12,641	10,898	104	105
1984 ...	13,628	11,886	13,157	11,476	100	102
1985 ...	14,586	12,606	13,892	12,004	100	101
1986 ...	15,608	13,528	14,675	12,718	101	102
1987 ...	16,845	14,393	15,569	13,303	101	101
1988 ...	18,399	15,786	16,753	14,374	102	102

Source: U.S. Department of Commerce, Bureau of Economic Analysis, diskettes dated August 1989.

Table 385.-- PER CAPITA PERSONAL INCOME IN CURRENT AND CONSTANT DOLLARS: 1978 AND 1988

Subject	Value	Subject	Value
Per capita personal income: 1/		Percent increase, 1978-88: 3/	
1978	8,660	Current dollars	93.5
1988	16,753	Constant dollars	6.3
In 1978 dollars 2/	9,209		
		Rank: 4/	
Percent of U.S. average:		1978	13
1978	106.4	1988	15
1988	101.6	Percent increase	27

1/ In dollars. U.S. values were $8,136 in 1978 and $16,489 in 1988 ($9,088 in 1978 dollars).

2/ Based on Honolulu CPI-U (66.9 in 1978 and 121.7 in 1988).

3/ U.S. increases were 102.7 percent in current dollars and 11.7 percent in constant dollars).

4/ Among 50 States and D.C.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, diskettes dated August 1989. Constant dollar values calculated by DBED.

Table 386.-- PERSONAL INCOME: QUARTERLY, 1986 TO 1989

[In millions of dollars. Seasonally adjusted at annual rates]

Quarter	1986	1987	1988	1989
First	15,204	16,313	17,718	19,421
Second	15,436	16,618	18,081	19,936
Third	15,744	17,001	18,551	(NA)
Fourth	16,047	17,450	19,245	(NA)

NA Not available.

Source: U.S. Bureau of Economic Analysis, Survey of Current Business, October 1989, p. 30 and printouts.

Table 387.-- PERSONAL INCOME BY MAJOR SOURCES: 1983 TO 1988

[In millions of dollars. Revised from Data Book 1988, table 411]

Item	1983	1984	1985	1986	1987	1988
Labor and proprietors income						
By type:						
Wage and salary disbursements .	8,114	8,584	9,184	9,779	10,705	11,752
Other labor income	701	752	759	852	921	1,026
Proprietors income	938	937	1,062	1,203	1,258	1,350
Farm	215	115	108	154	103	114
Nonfarm	723	822	945	1,049	1,155	1,236
By industry:						
Farm	367	267	258	306	262	275
Nonfarm	9,385	10,005	10,746	11,528	12,623	13,853
Private	6,345	6,780	7,314	8,006	8,956	9,955
Government and government enterprises	3,040	3,225	3,432	3,522	3,668	3,898
Federal, civilian	859	919	967	950	991	1,044
Federal military	1,094	1,175	1,274	1,295	1,326	1,352
State and local	1,087	1,131	1,192	1,278	1,350	1,501
Derivation of personal income						
Labor and proprietors income	9,753	10,272	11,005	11,834	12,885	14,128
Less: Personal contributions for social insurance	586	626	678	728	794	908
Net labor and proprietors income	9,166	9,646	10,327	11,106	12,090	13,220
Plus: Dividends, interest, and rent	1,837	2,049	2,189	2,308	2,461	2,724
Plus: Transfer payments	1,872	1,933	2,073	2,194	2,294	2,456
Personal income	12,875	13,628	14,589	15,608	16,845	18,399

Source: U.S. Department of Commerce, Bureau of Economic Analysis, diskettes dated August 1989.

Table 388.-- PERSONAL INCOME, TOTAL AND PER CAPITA, BY COUNTIES: 1977 TO 1987

Year	State total	City and County of Honolulu	Other counties			
			Total	Hawaii	Kauai	Maui and Kalawao
TOTAL (MIL. DOL.)						
1977	7,209.5	5,939.9	1,269.6	564.3	240.9	464.3
1978	8,043.1	6,618.5	1,424.6	636.0	273.2	515.3
1979	9,030.9	7,395.5	1,635.4	724.4	313.0	598.0
1980	10,279.2	8,293.1	1,986.2	901.3	374.4	710.5
1981	11,051.4	9,039.9	2,011.4	895.8	378.3	737.3
1982	11,731.7	9,570.6	2,161.1	948.9	406.6	805.7
1983	12,875.3	10,396.3	2,479.0	1,080.7	462.7	935.5
1984	13,627.9	11,063.9	2,564.0	1,117.3	471.7	975.1
1985	14,588.7	11,815.8	2,772.8	1,188.4	515.8	1,068.6
1986	15,639.3	12,586.4	3,053.0	1,302.5	569.8	1,180.7
1987	16,970.0	13,632.1	3,337.9	1,425.2	622.4	1,290.2
PER CAPITA (DOLLARS)						
1977	7,873	8,082	7,022	6,831	6,803	7,398
1978	8,660	8,938	7,566	7,425	7,444	7,814
1979	9,506	9,816	8,318	8,133	8,234	8,600
1980	10,617	10,854	9,727	9,682	9,499	9,916
1981	11,275	11,765	9,501	9,232	9,308	9,944
1982	11,760	12,292	9,868	9,472	9,703	10,477
1983	12,640	13,107	10,993	10,526	10,764	11,724
1984	13,154	13,805	10,934	10,438	10,691	11,688
1985	13,874	14,568	11,535	10,851	11,365	12,502
1986	14,689	15,343	12,492	11,716	12,342	13,563
1987	15,677	16,412	13,251	12,455	13,085	14,352

Source: U.S. Department of Commerce, Bureau of Economic Analysis, printout dated April 1989.

Table 389.-- UNREPORTED OR ILLEGAL INCOME: 1981

[In millions of dollars. Data are rough estimates of income from the "underground economy," based in part on estimated national ratios of unreported to reported income. For greater detail, see source or Data Book 1984, table 284]

Source	Amount
All sources	1,160.3
Percent of reported personal income	10.7
Income hidden to avoid taxes	569.1
Income from illegal transfers	56.0
Income from production and distribution of illegal goods	445.6
Income from illegal services	58.0
Other illegal income	31.6

Source: Linda Kephart, "Business booms 'off-the-books,'" *Hawaii Business*, March 1984, p. 69.

Table 390.-- ESTIMATED DECILE DISTRIBUTIONS OF FAMILY INCOMES, BY COUNTIES: 1979 AND 1989

[Data refer to calendar year 1979 and fiscal year 1989]

County	1st decile		5th decile (median)		9th decile	
	1979	1989	1979	1989	1979	1989
Honolulu	7,569	12,565	23,553	39,100	49,866	82,781
Hawaii	5,975	9,681	19,131	31,000	42,778	69,317
Kauai	7,089	11,508	20,881	33,900	42,150	68,429
Maui	7,216	11,697	22,578	36,600	48,653	78,868

Source: U.S. Department of Housing and Urban Development, Office of Economic Affairs, Economic and Market Analysis Division, estimates dated October 1, 1988.

Table 391.-- MEDIAN INCOME OF HOUSEHOLDS, FAMILIES, UNRELATED INDIVIDUALS, AND PERSONS: 1949 TO 1987

[In dollars. Based on censuses or surveys made in March or April of following year. Data for 1980-1987 are taken from small samples (averaging 559 households annually) and thus are subject to considerable sampling variation]

Year	Households	Families	Unrelated individuals with income 1/	Persons with income 1/	
				Male	Female
1949	(NA)	3,568	1,583	2,340	1,247
1959	(NA)	6,366	1,998	3,753	1,796
1969	10,675	11,664	2,981	6,528	3,222
1975	15,991	17,770	6,180	9,489	4,082
1979	20,473	22,750	7,097	11,505	6,581
1980	21,666	24,813	8,506	13,533	6,917
1981	22,434	27,499	10,003	13,635	7,069
1982	23,582	27,840	11,068	13,582	8,133
1983	26,805	29,742	12,211	14,903	7,941
1984	28,877	32,831	12,303	16,147	8,548
1985	28,961	33,244	14,351	15,865	9,987
1986	29,003	34,665	14,906	18,889	9,998
1987	34,398	39,038	14,876	19,872	10,765

NA Not available.

1/ 14 years old and over through 1975, and 15 years old and over thereafter. Data for 1975 and 1980-1987 exclude persons in military group quarters.

Source: U.S. Bureau of the Census, *Census of Population: 1960, General Social and Economic Characteristics, Hawaii*, Final Report *PC(1)-13C (1962), tables 66 and 67 (for 1949 data)*; *1970 Census of Population, General and Economic Characteristics, Hawaii*, PC(1)-C13 (December 1971), table 47 (for 1959 data); *1980 Census of Population, General Social and Economic Characteristics, Hawaii*, PC80-1-C-13 (June 1983), table 61 (for 1969 and 1979 data); "Household Money Income in 1975, by Housing Tenure and Residence, for the United States, Regions, Divisions, and States (Spring 1976 Survey of Income and Education)," *Current Population Reports, Consumer Income*, Series P-60, No. 108 (November 1977), p. 145; "Money Income and Poverty Status in 1975 of Families and Persons in the United States and the West Region, by Divisions and States (Spring 1976 Survey of Income and Education)," *Current Population Reports, Consumer Income*, Series P-60, No. 113 (July 1978), pp. 175-177; Current Population Survey (March), annual, 1981 to 1988, machine-readable file, tabulated by Hawaii State Data Center.

Table 392.-- INCOME OF HOUSEHOLDS AND FAMILIES: ANNUAL AVERAGES, 1982 TO 1984 AND 1985 TO 1987

[Data refer to income before taxes, as reported in March survey in following year. Based on a pooled sample of 1,730 households for 1982-1984 and 1,512 households for 1985-1987]

Income	Households		Families	
	1982-1984	1985-1987	1982-1984	1985-1987
Total	327,405	349,890	247,521	266,736
Under $5,000	20,902	17,592	9,513	5,880
$5,000 to $7,499	15,307	14,944	8,807	7,686
$7,500 to $9,999	19,302	11,323	9,843	6,735
$10,000 to $14,999	38,121	28,669	26,731	18,720
$15,000 to $19,999	32,044	37,641	20,483	24,490
$20,000 to $24,999	30,415	31,101	24,461	22,770
$25,000 to $34,999	59,227	55,125	49,274	45,204
$35,000 to $49,999	62,788	63,500	56,006	53,813
$50,000 to $74,999	38,388	62,320	32,791	56,799
$75,000 and over	10,910	27,674	9,613	24,639
Median income (dollars)	26,343	30,858	30,071	35,478

Source: U.S. Bureau of the Census for U.S. Bureau of Labor Statistics, Current Population Survey (March), annual, 1983 to 1988; machine-readable data file, special tabulation by Hawaii State Data Center.

Table 393.-- INCOME AND POVERTY STATUS IN PREVIOUS YEAR: 1970 AND 1980

Subject	1970	1980
INCOME IN PREVIOUS YEAR		
Households	204,415	294,934
Median income (current dollars)	$10,675	$20,473
Median income (1979 dollars)	$21,137	$20,473
Families	170,729	227,974
Median income (current dollars)	$11,664	$22,750
Median income (1979 dollars)	$23,095	$22,750
Unrelated individuals 15 years and over	83,093	136,692
Median income (current dollars)	$2,981	$7,097
Median income (1979 dollars)	$5,902	$7,097
Male, 15 years and over 1/	289,165	378,942
Without income	29,578	29,106
With income	259,587	349,836
Median income (current dollars)	$6,528	$11,505
Median income (1979 dollars)	$12,925	$11,505
Female, 15 years and over 1/	264,590	360,707
Without income	94,729	78,1157
With income	169,861	282,592
Median income (current dollars)	$3,222	$6,581
Median income (1979 dollars)	$6,380	$6,681
INCOME IN PREVIOUS YEAR BELOW POVERTY LEVEL 2/		
Persons	68,364	91,618
65 years and over	8,457	7,654
In families	51,530	66,843
Householder	13,063	17,700
Female householder, no husband present	5,180	7,985
Related child under 18 years	27,895	35,103
Related child under 6 years	10,129	14,725
Other relatives	10,572	14,040
Unrelated individuals	16,834	24,775
65 years and over	4,561	4,9277

1/ 14 years and over in 1970.

2/ Percent columns show percent below poverty level for specified groups. Data are based on U.S. poverty thresholds. Thresholds in Hawaii are about 15 percent higher; these statistics accordingly understate the number of persons in Hawaii below the poverty level.

Source: U.S. Bureau of the Census, 1980 Census of Population, General Social and Economic Characteristics, Hawaii, PC80-1-13C (July 1983), table 61.

Table 394.-- POVERTY STATUS IN 1979 OF FAMILIES AND PERSONS: 1980

[Based on nationwide poverty thresholds. Hawaii thresholds are approximately 15 percent higher than those in effect on the Mainland; these data accordingly understate the numbers of persons and families below the poverty level in Hawaii. Data refer to the poverty status in 1979 of families and persons surveyed in April 1980]

Subject	Number
ALL INCOME LEVELS IN 1979	
Families	227,974
Unrelated individuals	107,787
Persons	927,032
INCOME IN 1979 BELOW POVERTY LEVEL	
Families	17,700
Percent below poverty level	7.8
Unrelated individuals	24,775
Percent below poverty level	23.0
Persons	91,618
Percent below poverty level	9.9
INCOME IN 1979 BELOW 125 PERCENT OF POVERTY LEVEL	
Families	26,815
Percent below poverty level	11.8
Unrelated individuals	30,725
Percent below poverty level	28.5
Persons	133,214
Percent below poverty level	14.4
INCOME IN 1979 BELOW SPECIFIED POVERTY LEVEL	
Percent of persons:	
Below 75 percent of poverty level	6.1
Below 150 percent of poverty level	19.0
Below 200 percent of poverty level	29.0

Source: U.S. Bureau of the Census, 1980 Census of Population, General Social and Economic Characteristics, Hawaii, PC80-1-C13 (June 1983), table 72.

Table 395.-- POVERTY STATUS OF FAMILIES AND UNRELATED INDIVIDUALS: 1969 TO 1987

[Based on censuses or surveys made in March or April of following year]

Year	Families			Unrelated individuals 2/		
	Total	Below poverty level 1/		Total	Below poverty level 1/	
		Number	Percent		Number	Percent
1969 ..	170,729	13,046	7.6	55,588	16,833	30.3
1975 ..	201,000	13,000	6.4	66,000	14,000	21.6
1979 ..	227,974	17,700	7.8	107,787	24,775	23.0
1985 ..	253,914	18,776	7.4	117,639	27,243	23.2
1986 ..	264,689	23,419	8.8	122,419	31,828	26.0
1987 ..	281,599	20,468	7.3	107,656	19,513	18.1

1/ Based on Mainland poverty thresholds. Hawaii thresholds are approximately 15 percent higher than those in effect on the Mainland; these data accordingly understate the number and percent of families and unrelated individuals below poverty level in Hawaii.

2/ 14 years old and over through 1975, and 15 years old and over thereafter. Data for 1975, 1985, and 1986 exclude persons in military group quarters.

Source: U.S. Bureau of the Census, 1970 Census of Population, General Social and Economic Characteristics, Hawaii, PC(1)-C13 (December 1971), table 58; "Money Income and Poverty Status in 1975 of Families and Persons in the United States and West Region, by Divisions and States (Spring 1976 Survey of Income and Education)," Current Population Reports, Consumer Income, Series P-60, No. 113 (July 1978), pp. 179-180; 1980 Census of Population, General Social and Economic Characteristics, Hawaii, PC80-1-C13 (June 1983), table 72; Current Population Survey (March), 1986 to 1988, machine-readable file, special tabulation by Hawaii State Data Center.

Table 396.-- POVERTY INCOME GUIDELINES: 1980, 1988 AND 1989

[In dollars. These family income levels are poverty thresholds established by the U.S. Department of Health and Human Services to determine eligibility for certain Federal programs for the poor. In earlier years, these guidelines were issued by the Community Services Administration]

Size of family unit	Effective April 21, 1980 1/	Effective Feb. 12, 1988 2/	Effective Feb. 16, 1989 2/
1	4,370	6,650	6,870
2	5,770	8,900	9,220
3	7,170	11,150	11,570
4	8,570	13,400	3/ 13,920
5	9,970	15,650	16,270
6	11,370	17,900	18,620
7	12,770	20,150	20,970
8	14,170	22,400	4/ 23,320

1/ Nonfarm families only; guidelines for farm families were lower.

2/ All families.

3/ Corresponding levels for four-person families elsewhere in the United States were $12,100 on the Mainland and $15,130 in Alaska.

4/ For larger families, add $2,350 for each additional member.

Source: Community Services Administration, "General Characteristics of Community Action Programs; Income Poverty Guidelines (Revised)," Federal Register, Vol. 45, No. 78 (April 21, 1980), pp. 26712-26713; U.S. Department of Health and Human Services, "Annual Update of the Poverty Income Guidelines," Federal Register, Vol. 53, No. 29 (February 12, 1988), pp. 4213-4214, and "Annual Update of the Poverty Income Guidelines," Federal Register, Vol. 54, No. 31 (February 16, 1989), pp. 7097-7098.

Table 397.-- ANNUAL INCOME AND EXPENDITURES OF URBAN CONSUMER UNITS, FOR OAHU: 1980-81 TO 1986-87

[Data based on 792 sample interviews in 1980-81, 928 in 1982-83, 1,043 in 1984-85, and 1,214 in 1986-87. The 1986-87 tabulations are not strictly comparable to earlier data. For detailed breakdowns, see source]

Item	Annual averages (dollars)			
	1980-81	1982-83	1984-85	1986-87
Total expenditures	18,584	22,247	24,818	28,239
Food at home	2,681	2,838	2,994	2,600
Food away from home	887	1,265	1,350	2,195
Alcoholic beverages	302	460	413	351
Housing	5,454	6,122	6,934	8,610
Shelter	3,523	3,948	4,735	5,800
Utilities, fuels, and public services	937	1,142	1,144	1,099
Household operations	369	280	311	324
Housekeeping supplies	...	...	...	390
Housefurnishings and equipment	626	751	745	996
Apparel and services	773	1,080	1,158	1,688
Transportation	3,729	4,051	4,681	4,244
Health care	731	770	987	1,026
Entertainment	804	1,101	1,170	1,466
Personal care	153	232	243	413
Reading	119	159	176	169
Education	265	380	454	665
Tobacco and smoking supplies	143	177	214	208
Miscellaneous	258	482	480	603
Cash contributions	504	923	1,191	785
Personal insurance and pensions	1,779	2,204	2,391	3,217
Money income before taxes	22,926	27,937	30,751	32,575
Personal taxes	2,915	3,595	2,965	2,907
Other money receipts	123	227	579	(NA)
Mortgage principal paid on owned property	440	635	490	(NA)
Gifts of goods and services	498	690	700	(NA)

NA Not available.

Source: U.S. Bureau of Labor Statistics, Consumer Expenditure Survey: Interview, 1984, Bulletin 2267 (August 1986), pp. 67-70 and 83-86; 1984-85 printouts; and Consumer Expenditures, 1986-87--Honolulu Area (BLS Release 89-73, November 13, 1989).

Table 398.-- TOP WEALTHHOLDERS: 1962 TO 1982

[Top wealthholders are defined as persons with a gross estate in excess of specified amounts, rising from $60,000 in 1962 to $325,000 in 1982. All figures are estimates based on estate tax return samples]

Group and year	Number of top wealthholders	Millions of dollars		
		Total assets	Debts and mortgages	Net worth
Gross estate over $60,000:				
1962	11,323	1,908	231	1,677
1969	36,470	6,327	1,090	5,236
1972	53,700	7,866	1,369	6,497
Gross estate over $120,000:				
1976	39,000	7,436	1,546	5,890
Gross estate over $325,000:				
1982	20,300	14,767	3,523	11,244
Gross estate over $500,000:				
1982	8,700	10,864	2,919	7,946

Source: U.S. Internal Revenue Service, Statistics of Income - 1962, Personal Wealth (1967), pp. 55-56; Statistics of Income - 1969, Personal Wealth (1973), pp. 57-58; Statistics of Income - 1972, Personal Wealth Estimated from Estate Tax Returns (1976), table 33; and Statistics of Income Bulletin, Summer 1983, pp. 1-26, and Spring 1988, pp. 31-46.

Table 399.-- CHARACTERISTICS OF TOP WEALTHHOLDERS: 1982

[Top wealthholders are defined as persons with gross assets of $325,000 or more. All figures in this table are estimates based on estate tax return samples]

Subject	Number of persons	Amount (millions of dollars)
GROSS ASSETS OF $325,000 OR MORE		
Total assets, all persons in group	20,300	14,767
Debts and mortages	18,400	3,523
Net worth	20,300	11,244
Men	13,100	7,309
Women	7,200	3,935
GROSS ASSETS OF $500,000 OR MORE		
Total assets, all persons in group	8,700	10,864
Debts and mortgages	8,000	2,919
Net worth	8,700	7,946
Men	6,000	5,655
Women	2,700	2,290
Selected assets:		
Cash	8,400	501
Corporate stock	7,200	2,376
Bonds	3,000	899
Real estate	8,500	5,840
Noncorporate business assets	3,500	467
NET WORTH OF $1,000,000 OR MORE		
Net worth, all persons in group (millionaires)	1,400	4,813

Source: U.S. Internal Revenue Service, "Estimates of Personal Wealth, 1982: A Second Look," SOI Bulletin, Spring 1988, pp. 31-46.

Table 400.-- WORTH OF RICHEST RESIDENTS: 1989

Name	Age (years)	Net worth (million dollars)
Barbara Cox Anthony	66	2,500
Doris Duke 1/	76	850
Harry Weinberg 2/	81	800
Campbell family	...	700
Kelley family	...	580
Richard Palmer Kaleioku Smart	76	310

1/ Also a resident of New Jersey and Rhode Island.
2/ Also a resident of Baltimore.
Source: "The 400 Richest People in America," Forbes, October 23, 1989, pp. 145-358.

Section 14

PRICES

This section presents indexes of consumer prices for Honolulu, the implicit price deflator for gross state product, actual prices for selected foods, and comparisons of Honolulu living costs with those in other urban areas. Other statistics on prices are reported in Sections 7, 16, 17, 18, 21, and 23.

During the first six months of 1989, the Honolulu all-items consumer price index for all urban consumers (CPI-U) averaged 126.4, with the 1982-1984 level equal to 100. The index had increased 5.2 percent over the first half of 1988, 23.3 percent since 1984, and 70.1 percent since 1979. Prices have risen most rapidly since the 1982-84 base period for shelter (37.4 percent) and medical care (36.0 percent) and have dropped most rapidly for electricity (27.5 percent). The implicit price deflator for expenditures on gross state product (a measure of price changes used in the state product accounts) rose 61.5 percent between 1978 and 1988.

An "intermediate" budget for a four-person family living on Oahu was unofficially estimated at $44,614 as of 1988. This family budget was 28.7 percent higher than the corresponding urban United States average. Differences were particularly marked for renter shelter costs (43.0 percent higher) and personal income taxes (66.4 percent higher).

The Honolulu consumer price index has been compiled by the U.S. Bureau of Labor Statistics since December 1963. This index measures the average change in prices of goods and services purchased by urban households. Prices are expressed as a percent of the average levels reported in 1982-1984, the base date. Current data for Honolulu and other cities are published in CPI Detailed Report, issued monthly by BLS.

Important technical changes have been made in the consumer price index in recent years. In 1978, the Bureau of Labor Statistics added a new index, the CPI-U, covering all urban consumers, to the older index, the CPI-W, which was limited to urban wage earners and clerical workers and their families. In 1983, the basis for measuring homeowners' costs was substantially modified. In 1987, component weights based on a 1982-1984 survey replaced the older weights derived from 1972-1973 data. At the same time, the publication of the Honolulu indexes was moved from a bimonthly to a semi-annual basis. Beginning in 1988, the base period was shifted from 1967 to 1982-1984. Both the CPI-U and CPI-W have been linked to older indexes going back to 1940.

Official comparisons of Honolulu and Mainland living costs are no longer being made. The annual four-person family budgets estimated by the Bureau of Labor Statistics for Honolulu and the Mainland were discontinued after 1981, and are now maintained unofficially by the Bank of Hawaii. The annual comparison of prices in Hawaii and Washington, D.C., compiled by the U.S. Office of Personnel Management to provide a basis for cost of living adjustments for Federal employees, has not been published since 1983. Annual surveys of food prices in Honolulu and other cities were regularly made by the Honolulu Advertiser in conjunction with the Tampa Tribune from 1979 to 1987.

No composite wholesale or producer price index is available for Hawaii. Average wholesale prices of agricultural products are reported in Statistics of Hawaiian Agriculture, issued by the Hawaii Agricultural Statistics Service, and in various other publications of the State Department of Agriculture. Wholesale price statistics of other commodities are seldom available.

Data on prices and living costs for the nation as a whole and other areas are summarized in Statistical Abstract of the United States: 1989, Section 15. Long-term trends for Hawaii are traced in Historical Statistics of Hawaii, Section 5.

Table 401.-- IMPLICIT PRICE DEFLATOR FOR EXPENDITURES ON GROSS STATE PRODUCT: SELECTED YEARS, 1958 TO 1988

[1982 = 100]

Year	Deflator	Year	Deflator	Year	Deflator
1958 ...	34.1	1977 ...	71.0	1983 ...	104.2
1960 ...	34.4	1978 ...	77.1	1984 ...	108.1
1965 ...	37.7	1979 ...	84.0	1985 ...	111.7
1970 ...	47.3	1980 ...	89.3	1986 ...	114.6
1975 ...	63.9	1981 ...	93.3	1987 ...	119.8
1976 ...	67.5	1982 ...	100.0	1988 ...	124.5

Source: Hawaii State Department of Business and Economic Development, Hawaii Gross State Product Accounts: 1958-1988 (June 1989), tables 1-A and 1-5.

Table 402.-- CONSUMER PRICE INDEX (ALL ITEMS COMBINED), BY TYPE OF CONSUMER, FOR HONOLULU: ANNUAL AVERAGES, 1940 TO 1988

[1982-1984 average = 100. Excludes rent before 1963]

Year	CPI-U	CPI-W
1940	14.7	14.5
1941	15.5	15.3
1942	17.6	17.4
1943	18.9	18.7
1944	19.2	19.0
1945	19.7	19.5
1946	21.0	20.8
1947	24.4	24.1
1948	25.7	25.4
1949	25.2	24.9
1950	24.3	24.0
1951	25.7	25.4
1952	26.5	26.2
1953	26.7	26.4
1954	26.9	26.6
1955	27.3	27.0
1956	27.7	27.4
1957	28.6	28.3
1958	30.0	29.6
1959	30.5	30.1
1960	31.3	30.9
1961	32.1	31.7
1962	32.8	32.4
1963	33.5	33.1
1964	33.7	33.3
1965	34.4	33.9
1966	35.3	34.8
1967	36.3	35.8
1968	37.7	37.2
1969	39.4	38.8
1970	41.5	40.9
1971	43.2	42.6
1972	44.6	44.0
1973	46.6	45.9
1974	51.5	50.8
1975	56.3	55.5
1976	59.1	58.3
1977	62.1	61.2
1978	66.9	65.9
1979	74.3	73.2
1980	83.0	81.9
1981	91.7	90.5
1982	97.2	96.0
1983	99.3	99.8
1984	103.5	104.3
1985	106.8	107.9
1986	109.4	110.3
1987	114.9	115.9
1988	121.7	122.8

Source: 1964-1988 from U.S. Bureau of Labor Statistics tapes tabulated by Hawaii State Data Center. 1940-1963 from surveys by Eugene Danaher and Hawaii State Department of Labor and Industrial Relations, cited in Hawaii State Department of Planning and Economic Development, The Honolulu Consumer Price Index, 1940-1986 (Statistical Report 187, May 30, 1986), as shifted to 1982-1984 base by Hawaii State Data Center.

Table 403.-- CONSUMER PRICE INDEX (ALL ITEMS COMBINED), BY TYPE OF CONSUMER, FOR HONOLULU: SEMI-ANNUALLY, 1984 TO 1989

[1982-1984 average = 100]

Year	All urban consumers (CPI-U)			Urban wage earners and clerical workers (CPI-W)		
	Annual average	First half	Second half	Annual average	First half	Second half
1984 ...	103.5	102.5	104.4	104.3	103.0	105.5
1985 ...	106.8	106.3	107.4	107.9	107.4	108.4
1986 ...	109.4	108.9	109.9	110.3	109.9	110.7
1987 ...	114.9	113.3	116.5	115.9	114.3	117.6
1988 ...	121.7	120.1	123.4	122.8	121.1	124.5
1989 ...		126.4			127.4	

NA Not available.

Source: U.S. Bureau of Labor Statistics, tapes tabulated by Hawaii State Data Center and press releases.

Table 404.-- PERCENT CHANGE IN SELECTED PRICE INDEXES: 1978 TO 1988

Index 1/	1978 to 1988	1978 to 1983	1983 to 1988	1985 to 1986	1986 to 1987	1987 to 1988
GSP deflator	61.5	35.1	19.5	2.6	4.5	3.9
Honolulu CPI-U	81.9	48.4	22.6	2.4	5.0	5.9
Honolulu CPI-W	86.3	51.4	23.0	2.2	5.1	6.0
U.S. CPI-U	81.4	52.8	18.8	1.9	3.7	4.1

1/ GSP deflator, the implicit price deflator for expenditures on Hawaii gross state product; CPI-U, consumer price index for all urban consumers; CPI-W, consumer price index for urban wage earners and clerical workers.

Source: Hawaii State Department of Business and Economic Development, "The Honolulu Consumer Price Index, 1988," Quarterly Statistical & Economic Report, 1st Quarter 1989, pp. 9-19; present report, table 401.

Table 405.-- CONSUMER PRICE INDEX FOR ALL URBAN CONSUMERS, BY EXPENDITURE CATEGORY AND COMMODITY AND SERVICE GROUP, FOR HONOLULU: ANNUAL AVERAGES, 1984 TO 1988

[Unless otherwise specified, 1982-1984 average=100]

Group	1984	1985	1986	1987	1988
All items	103.5	106.8	109.4	114.9	121.7
Food and beverages	103.6	107.8	110.0	114.1	120.3
Food	103.7	107.7	109.9	114.3	120.2
Food at home	103.4	106.7	109.0	113.4	120.0
Cereals and bakery products	103.8	109.4	112.8	117.2	127.0
Meats, poultry, fish, and eggs	101.7	102.6	104.3	108.5	119.1
Meats, poultry, and fish	101.3	102.6	104.3	107.9	119.1
Dairy products	101.2	103.6	105.0	105.9	106.5
Fruits and vegetables	106.4	111.9	112.3	116.5	122.3
Other foods at home	104.7	108.9	113.2	119.4	122.2
Food away from home	104.5	108.6	111.4	115.6	121.0
Alcoholic beverages	102.4	108.4	111.1	111.4	121.0
Housing	103.1	106.0	108.4	115.0	123.0
Shelter	104.0	108.5	113.9	122.1	132.1
Renters' costs 1/	109.4	115.0	121.1	127.3	133.9
Rent, residential	105.8	110.9	116.9	122.3	129.4
Other renters' costs	109.4	117.9	122.5	129.7	131.7
Homeowners' costs 1/	105.9	110.4	115.7	124.9	136.5
Owners' equivalent rent 1/	105.8	110.4	115.8	125.0	136.8
Fuel and other utilities	100.2	97.5	87.6	88.8	87.3
Fuels	97.7	93.0	75.2	77.8	72.6
Gas (piped) and electricity	97.7	92.9	74.9	77.4	72.1
Electricity	97.5	92.3	73.3	76.0	70.4
Utility (piped) gas	99.4	98.7	88.2	87.6	86.5
Household furnishings and operation	101.7	103.0	104.7	108.8	117.3
Apparel and upkeep	100.2	99.6	99.8	102.5	106.8
Apparel commodities	99.6	98.6	98.5	101.2	105.4
Men's and boys' apparel	101.0	104.2	106.8	114.7	121.2
Women's and girls' apparel	100.2	102.8	102.0	100.3	105.3
Footwear	101.9	103.2	100.8	100.4	101.2
Transportation	102.9	104.9	105.2	109.7	116.1
Private transportation	103.3	105.3	105.4	109.7	116.4
Motor fuel	99.7	100.7	88.5	90.9	95.4
Gasoline	99.9	100.8	88.5	91.0	95.3
Public transportation	100.0	101.8	103.8	109.1	112.9
Medical care	107.3	113.2	122.3	127.9	132.5
Entertainment	104.3	111.9	113.2	118.6	122.9
Other goods and services	106.6	112.5	119.6	129.7	137.1
Personal care	100.7	103.8	107.3	112.6	115.8

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Table 405.-- CONSUMER PRICE INDEX FOR ALL URBAN CONSUMERS, BY EXPENDITURE CATEGORY AND COMMODITY AND SERVICE GROUP, FOR HONOLULU: ANNUAL AVERAGES, 1984 TO 1988 -- Con.

Group	1984	1985	1986	1987	1988
All items	103.5	106.8	109.4	114.9	121.7
Commodities	103.0	105.7	106.2	109.6	115.5
Food and beverages	103.6	107.8	110.0	114.1	120.3
Commodities less food and beverages	102.5	104.0	103.1	106.0	111.8
Nondurables less food and beverages	102.0	104.3	102.5	105.5	110.1
Durables	103.4	103.7	104.5	107.2	114.9
Services	103.9	107.9	112.3	119.8	127.4
Medical care services	107.4	113.0	122.1	128.1	132.4
Special indexes:					
All items less shelter	103.3	106.3	107.7	112.2	117.7
All items less medical care	103.2	106.4	108.6	114.1	121.0
All items less energy	103.9	107.8	112.0	118.1	125.5
Energy	98.8	97.1	82.3	84.8	84.7
Commodities less food	102.5	104.2	103.5	106.2	112.1
Nondurables less food	102.1	104.6	103.0	105.8	110.7
Nondurables	102.9	106.2	106.6	110.2	115.7
Services less rent of shelter 1/	105.8	109.2	112.6	119.0	123.8
Services less medical care	103.5	107.3	111.2	118.8	126.6

1/ December 1982=100.

Source: U.S. Bureau of Labor Statistics, printouts and tapes tabulated by Hawaii State Data Center.

Table 406.-- CONSUMER PRICE INDEX FOR URBAN WAGE EARNERS AND CLERICAL WORKERS, BY EXPENDITURE CATEGORY AND COMMODITY AND SERVICE GROUP, FOR HONOLULU: ANNUAL AVERAGES, 1984 TO 1988

[Unless otherwise specified, 1982-1984 average=100]

Group	1984	1985	1986	1987	1988
All items	104.3	107.9	110.3	115.9	122.8
Food and beverages	103.7	108.3	110.8	115.3	121.7
Food	103.8	108.2	110.8	115.6	121.7
Food at home	103.6	107.4	110.1	114.9	121.9
Cereals and bakery products	103.5	108.8	111.7	115.7	125.4
Meats, poultry, fish, and eggs	102.4	105.2	107.6	112.9	124.3
Meats, poultry, and fish	102.1	105.3	107.8	112.4	124.6
Dairy products	101.1	103.5	104.9	105.5	106.5
Fruits and vegetables	106.3	111.1	112.3	117.9	123.0
Other foods at home	104.7	109.1	113.3	119.0	122.0
Food away from home	104.6	108.8	111.8	116.1	121.4
Alcoholic beverages	102.6	108.5	111.3	111.1	121.4
Housing	104.9	108.6	111.0	117.4	125.5
Shelter	106.6	112.3	117.7	126.0	136.3
Renters' costs 1/	(NA)	102.8	108.2	113.2	119.3
Rent, residential	105.8	110.9	116.9	122.3	129.4
Other renters' costs	110.0	118.9	122.8	128.8	130.7
Homeowners' costs 1/	(NA)	103.3	108.4	116.9	127.9
Owners' equivalent rent 1/	(NA)	103.3	108.4	117.0	128.1
Fuel and other utilities	100.2	97.5	87.6	88.7	87.4
Fuels	97.7	93.1	75.3	77.7	72.7
Gas (piped) and electricity	97.7	93.0	75.1	77.5	72.4
Electricity	97.5	92.2	73.3	76.0	70.4
Utility (piped) gas	99.4	98.6	88.3	87.6	86.5
Household furnishings and operation	101.5	103.4	105.6	109.7	118.7
Apparel and upkeep	100.3	99.4	100.1	103.7	108.2
Apparel commodities	99.7	98.4	98.7	102.3	106.9
Men's and boys' apparel	101.1	104.9	107.6	116.6	123.5
Women's and girls' apparel	100.5	102.9	103.1	101.8	107.1
Footwear	101.8	103.0	100.8	100.4	101.4
Transportation	102.8	104.7	104.7	109.2	115.7
Private transportation	103.1	105.0	104.8	108.8	115.5
Motor fuel	99.7	100.7	88.5	90.9	95.4
Gasoline	99.9	100.8	88.5	91.0	95.3
Public transportation	99.9	101.8	103.6	110.2	113.6
Medical care	106.9	112.6	121.1	126.7	131.4
Entertainment	104.6	111.9	113.1	119.3	123.6
Other goods and services	106.6	112.5	119.1	128.7	136.4
Personal care	100.8	104.0	107.5	112.7	115.7

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Table 406.-- CONSUMER PRICE INDEX FOR URBAN WAGE EARNERS AND CLERICAL WORKERS, BY EXPENDITURE CATEGORY AND COMMODITY AND SERVICE GROUP, FOR HONOLULU: ANNUAL AVERAGES, 1984 TO 1988 -- Con.

Group	1984	1985	1986	1987	1988
All items	104.3	107.9	110.3	115.9	122.8
Commodities	103.3	106.4	107.0	110.7	116.8
Food and beverages	103.7	108.3	110.8	115.3	121.7
Commodities less food and beverages	103.0	105.4	104.5	107.4	113.3
Nondurables less food and beverages	102.1	104.3	102.2	105.4	110.1
Durables	103.8	106.2	107.4	110.0	117.8
Services	105.6	109.8	114.3	121.9	129.5
Medical care services	107.0	112.3	120.7	126.9	131.3
Special indexes:					
All items less shelter	103.2	106.3	107.8	112.4	118.2
All items less medical care	104.1	107.6	109.6	115.2	122.2
All items less energy	104.8	109.0	113.3	119.3	126.9
Energy	98.9	97.5	83.0	85.4	85.7
Commodities less food	103.0	105.6	104.7	107.5	113.6
Nondurables less food	102.1	104.6	102.8	105.7	110.8
Nondurables	103.0	106.5	107.1	111.0	116.7
Services less rent of shelter 1/	(NA)	101.0	104.1	110.5	115.0
Services less medical care	105.5	109.5	113.5	121.2	129.1

NA Not available.

1/ December 1982=100.

Source: U.S. Bureau of Labor Statistics, printouts and tapes tabulated by Hawaii State Data Center.

Table 407.-- RELATIVE IMPORTANCE OF COMPONENTS IN THE CONSUMER PRICE INDEX FOR HONOLULU: DECEMBER 1988

[Percent of all items]

Group	CPI-U 1/	CPI-W 2/
EXPENDITURE CATEGORY		
All items	100.000	100.000
Food and beverages	20.709	21.984
Food	19.253	20.254
Food at home	12.053	12.262
Cereals and bakery products	1.693	1.934
Meats, poultry, fish, and eggs	3.928	4.245
Meats, poultry, and fish	3.670	3.919
Dairy products	.976	.920
Fruits and vegetables	2.612	2.495
Other foods at home	2.844	2.668
Food away from home	7.200	7.993
Alcoholic beverages	1.456	1.730
Housing	41.636	38.802
Shelter	30.844	28.403
Renters' costs	8.891	9.000
Rent, residential	7.722	8.198
Other renters' costs	1.169	.802
Homeowners' costs	21.754	19.217
Owners' equivalent rent	21.515	19.049
Fuel and other utilities	4.233	4.512
Fuels	1.909	2.017
Fuel oil, coal, and bottled gas	.022	.026
Fuel oil	.001	.003
Other fuels	.021	.022
Gas (piped) and electricity	1.887	1.991
Electricity	1.709	1.734
Utility (piped) gas	.178	.257
Household furnishings and operations	6.559	5.887
Apparel and upkeep	5.470	5.756
Apparel commodities	5.150	5.420
Men's and boys'	1.458	1.611
Women's and girls'	2.285	2.369
Footwear	.663	.733

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Table 407.-- RELATIVE IMPORTANCE OF COMPONENTS IN THE CONSUMER PRICE INDEX FOR HONOLULU: DECEMBER 1988 -- Con.

Group	CPI-U 1/	CPI-W 2/
EXPENDITURE CATEGORY -- Con.		
Transportation	16.533	18.548
Private	14.699	17.135
Motor fuel	2.957	3.594
Public	1.833	1.413
Medical care	5.041	4.749
Entertainment	4.604	4.435
Other goods and services	6.008	5.725
Personal care	1.240	1.349
COMMODITY AND SERVICE GROUP		
All items	100.000	100.000
Commodities	43.889	47.515
Food and beverages	20.709	21.984
Commodities less food and beverages	23.180	25.531
Nondurables less food and beverages	14.131	15.368
Durables	9.049	10.163
Services	56.111	52.485
Medical care services	4.115	3.800
Special indexes:		
All items less shelter	69.156	71.597
All items less medical care	94.959	95.251
All items less energy	95.135	94.389
Energy	4.865	5.611
Commodities less food	24.636	27.261
Nondurables less food	15.587	17.098
Nondurables	34.840	37.352
Services less rent of shelter	25.720	24.451
Services less medical care	51.995	48.685

1/ Consumer price index for all urban consumers.

2/ Consumer price index for urban wage earners and clerical workers.

Source: U.S. Bureau of Labor Statistics, printout.

Table 408.-- RETAIL FOOD PRICES FOR HONOLULU AND KAUAI, COMPARED WITH MAINLAND CITIES: 1985 TO 1987

[June data for a "market basket" of 35 or more common food items surveyed in various cities. Data include sales taxes. This survey was suspended after 1987]

Subject	1985	1986	1987
Honolulu:			
Amount (dollars)	61.45	59.64	65.83
Rank	1	1	1
Percent of U.S. average	131.4	125.3	126.6
Kauai:			
Percent of Honolulu	111	(NA)	119
Percent of U.S. average	145	(NA)	147
Number of cities surveyed (excl. Kauai)	21	21	17

NA Not available.

Source: Honolulu Advertiser, July 22, 1985, (p. D-1) August 21, 1985 (p. A-7), July 29, 1986 (p. B-1), and June 25, 1987 (p. A-1, as corrected); Sunday Star-Bulletin and Advertiser, August 30, 1987 (p. B-1).

Table 409.-- ANNUAL INTERMEDIATE BUDGETS, BY ITEM, FOR A FOUR-PERSON FAMILY IN THE UNITED STATES AND ON OAHU: 1981 AND 1988

[Hypothetical budgets for a family of specified characteristics, based on 1972-1973 expenditure patterns as updated by the consumer price index and current tax rates. The 1981 values are official estimates published by the U.S. Bureau of Labor Statistics; the 1988 values are unofficial estimates prepared by the Bank of Hawaii, using comparable assumptions and methodology. Users of these estimates should bear in mind the limitations imposed by the underlying assumptions and methods]

Item	Urban United States (dollars)		Oahu (dollars)		Oahu as percent of urban U.S.	
	1981	1988	1981	1988	1981	1988
Total budget	25,409	34,657	31,893	44,614	125.5	128.7
Consumption	18,242	24,293	21,530	29,190	118.0	120.2
Food	5,843	7,312	7,626	9,775	130.5	133.7
Food at home	4,866	6,004	6,649	8,439	136.6	140.6
Food away	977	1,308	977	1,336	100.0	102.1
Housing	5,547	7,522	6,493	9,185	117.1	122.1
Homeowner shelter costs ..	4,886	6,841	5,467	7,998	111.9	116.9
Renter shelter costs	2,732	3,925	3,991	5,613	146.1	143.0
Housefurnishings and operations	1,199	1,410	1,395	1,783	116.3	126.5
Transportation	2,372	2,767	2,421	2,937	102.1	106.1
Clothing	1,333	1,614	1,432	1,618	107.4	100.2
Personal care	508	681	590	781	116.1	114.7
Medical care	1,443	2,414	1,590	2,575	110.2	106.7
Other family consumption 1/	1,196	1,983	1,378	2,318	115.2	116.9
Other items 2/	1,021	1,329	1,137	1,509	113.6	113.5
Social Security payments	1,703	2,829	2,049	3,602	120.3	127.3
Personal income taxes	4,443	6,198	7,177	10,314	161.5	166.4

1/ Reading, recreation, tobacco products, alcoholic beverages, education, and miscellaneous expenditures.

2/ Includes gifts and contributions, life insurance, and occupational expenses.

Source: U.S. Bureau of Labor Statistics, Autumn 1981 Urban Family Budgets and Comparative Indexes for Selected Urban Areas (release USDL: 82-139, April 16, 1981); 1988 estimates by Paul Brewbaker, Economics Department, Bank of Hawaii.

Table 410.-- COST OF LIVING INDEXES, 1983, AND PAY DIFFERENTIALS, 1989, FOR FEDERAL EMPLOYEES IN HAWAII RELATIVE TO WASHINGTON, D.C.

Allowance category 1/	Oahu	Kauai	Maui County	Hawaii
INDEXES 2/				
Local retail:				
Private housing	121.7	114.6	120.9	113.1
Federal housing	105.0	106.7	113.4	104.6
Commissary, PX:				
Private housing	111.8	113.1	...	...
Federal housing	95.1	105.1	...	...
ALLOWANCE RATES 3/				
Local retail:				
Private housing	22.5	17.5	20.0	15.0
Federal housing	5.0	7.5	12.5	7.5
Commissary, PX:				
Private housing	12.5	17.5	...	...
Federal housing	0	7.5	...	...

1/ Based on access to military commissary and exchange facilities and type of housing occupied. "Local retail" refers to Federal employees who purchase goods and services from private retail establishments; "commissary, PX," to Federal employees who have unlimited access to and who use military commissary and exchange facilities. "Private housing" refers to Federal employees who occupy housing units that are privately owned or rented; "Federal housing," to Federal employees who occupy units owned or leased by a Federal agency.

2/ Washington, D.C., living costs=100. Based on a survey of comparative costs for Federal employees in 1983.

3/ Authorized allowance rate, expressed as a percentage differential, effective January 19, 1986, and current as of June 14, 1989.

Source: U.S. Office of Personnel Management, "Nonforeign Area Cost-of-Living Allowances for Guam and the State of Hawaii and Post Differentials for Certain Pacific Islands," _Federal Personnel Manual System_, FPM Letter 591-47 (1983), and "Nonforeign Area Cost-of-Living Allowances," _Federal Personnel Manual System_, FPM Letter 591-49 (1989).

Table 411.-- ANNUAL BUDGETS FOR A FOUR-PERSON FAMILY AND A RETIRED COUPLE ON OAHU: 1981 AND 1988

Year and budget level	Total budget (dollars)		Percent of U.S. urban average		Rank among 25 metro. areas	
	4-person family	Retired couple 1/	4-person family	Retired couple	4-person family	Retired couple
1981						
Lower budget	20,319	8,665	133	120	2	2
Intermediate budget	31,893	12,157	126	119	1	2
Higher budget	50,317	17,576	132	117	1	2
1988						
Intermediate budget	44,614	(NA)	129	(NA)	(NA)	(NA)

NA Not available.

1/ Excludes personal income taxes.

Source: U.S. Department of Labor, Bureau of Labor Statistics, Autumn 1981 Urban Family Budgets and Comparative Indexes for Selected Urban Areas (release USDL:82-139, April 16,1982), and Three Budgets for a Retired Couple, Autumn 1981 (release USDL:82-266, July 30, 1982); Bank of Hawaii, Business Trends, March-April 1989, pp. 5-6.

Table 412.-- COST OF RAISING A CHILD FROM BIRTH TO AGE 18: 1988

[In dollars. Moderate-cost level for a husband-wife family with no more than 5 children, living in the Western States]

Residence	18-year total	Annual average
Urban	112,017	6,223
Rural nonfarm	117,000	6,500

Source: U.S. Department of Agriculture, Family Economics Review, 1989, Vol. 2, No. 2, pp. 24-25.

Section 15

BANKING, INSURANCE, AND BUSINESS ENTERPRISE

Statistics in this section relate to banks and other financial institutions, stocks and bonds, insurance, fires, and business firms.

There were 10 banks with 182 locations, seven savings and loan associations with 158 locations, four trust companies with seven branches, and 54 industrial loan or small loan licensees with 185 branch offices in Hawaii as of December 31, 1988. Deposits in insured commercial banks reached $10.2 billion at the end of 1987, compared with $4.5 billion in 1980. Assets of savings and loan associations stood at $5.5 billion in December 1987, almost double their 1980 level of $2.9 billion. There were 136 credit unions with combined assets of $2.3 billion at the end of 1988.

Approximately 256,000 Hawaii residents held shares in U.S. public corporations or investment companies in 1985.

Life insurance in force in Hawaii at the end of 1987 amounted to $37 billion, more than twice the figure reported ten years earlier. For all 782 insurance companies doing business in the Islands, Hawaii premiums amounted to $1.5 billion in 1987 and losses, claims, and benefits paid came to $694 million. Fire losses in fiscal 1989 amounted to $20 million. Persons covered by the four major prepaid health insurance plans as of December 31, 1988 numbered 744,000, with annual membership dues of $611 million.

By mid-1989, almost 51,000 corporations and partnerships were registered to do business in Hawaii: 34,600 local ("domestic") corporations, 5,900 out-of-State ("foreign") corporations, and 10,400 partnerships. Business establishments with one or more employees in 1986 numbered 26,200; over half had fewer than five employees. During fiscal 1989, 4,600 new local corporations were formed. Business receipts of corporations in 1985 exceeded $22 billion; business receipts of partnerships and proprietorships in the same year amounted to respectively $1.9 billion and $1.6 billion. Hawaii's largest corporation, Castle & Cooke, reported annual sales of $2.5 billion. Business failures numbered 179 in 1988.

Sources for statistics on these subjects include the Hawaii State Department of Commerce and Consumer Affairs (specifically its Financial Institutions, Insurance, and Business Registration Divisions), the State Department of Taxation, county fire departments, the New York Stock Exchange, Dun and Bradstreet, Inc., local health insurance plans, the Hawaii Credit Union League, and the annual report on County Business Patterns issued by the U.S. Bureau of the Census. Historical Statistics of Hawaii, Sections 22 and 23, provides information for earlier periods. Comparable Mainland data appear in Sections 16 and 17 of Statistical Abstract of the United States: 1989.

Table 413.-- NUMBER OF FINANCIAL INSTITUTIONS, BY TYPES: 1979 TO 1988

[Excludes out-of-State branches of Hawaii-based institutions. As of December 31]

Type of charter, island, and year	Banks		Savings and loans associations		Trust companies		Industrial loan licensees	
	Firms	Locations	Associations	Locations	Firms	Locations	Firms	Locations
1979	9	159	9	136	4	7	77	247
1980	9	169	8	156	4	7	71	238
1981	9	171	9	163	4	7	76	236
1982	10	166	8	153	4	7	78	230
1983	10	162	8	166	4	7	72	209
1984	10	178	8	163	4	7	77	223
1985	10	179	8	163	4	7	66	201
1986	10	181	8	163	3	6	66	204
1987	10	185	7	148	3	6	64	199
1988	10	182	7	158	4	7	54	185
TYPE OF CHARTER: 1988								
Federal	3	13	5	87	-	-	-	-
State	7	169	2	71	4	7	54	185
ISLANDS: 1988								
Hawaii	6	20	7	19	2	2	12	20
Maui	7	20	7	15	1	1	12	17
Lanai	1	1	2	2	-	-	-	-
Molokai	1	1	2	2	-	-	1	1
Oahu	8	126	7	109	4	4	50	137
Kauai	4	14	6	11	-	-	8	10
Niihau	-	-	-	-	-	-	-	-

Source: Hawaii State Department of Commerce and Consumer Affairs, Division of Financial Institutions, records.

Table 414.-- CHARACTERISTICS OF STATE-CHARTERED FINANCIAL INSTITUTIONS, BY TYPES: 1986 TO 1988

[As of December 31]

Subject	1986	1987	1988
BANKS			
Number of banks	7	7	7
Number of branches and facilities	187	188	185
Assets (million dollars)	10,179.8	11,305.4	12,560.5
Deposits (million dollars)	9,072.1	9,971.8	11,292.7
Debits to demand deposits (mil. dol.)	108,555	123,168	133,916
Clearings (million dollars)	46,296	47,785	52,498
SAVINGS AND LOAN ASSOCIATIONS			
Number of associations	3	2	2
Number of branches and facilities	26	23	21
Assets (million dollars)	809.5	943.5	994.5
Withdrawable shares (million dollars)	570.4	636.5	710.6
TRUST COMPANIES			
Number of companies	4	3	3
Number of branches and facilities	3	*3	3
Assets (million dollars)	62.2	49.5	39.8
INDUSTRIAL LOAN COMPANIES			
Number of companies	72	61	51
Number of branches	215	192	153
Assets (million dollars)	1,481.5	2,398.2	2,556.6

* Corrected from published figure.

Source: Hawaii State Department of Commerce and Consumer Affairs, Division of Financial Institutions, Comparative Statement of Condition (semi-annual), monthly releases, and records.

Table 415.-- SELECTED FINANCIAL INSTITUTIONS STATISTICAL SUMMARY: 1983 TO 1987

[As of December 31]

Subject	1983	1984	1985	1986	1987
Commercial banks:					
Assets (billion dollars)	7.3	8.2	9.2	10.6	11.6
Deposits (billion dollars)	6.3	7.0	8.0	9.3	10.2
Insured commercial banks:					
Assets (billion dollars)	7.2	7.4	8.3	9.2	10.1
Deposits (billion dollars)	6.3	7.0	8.0	9.3	10.2
FSLIC-insured savings institutions:					
Number	6	(NA)	6	6	6
Assets (billion dollars)	3.3	(NA)	3.6	3.7	5.5
Deposits (billion dollars)	2.5	(NA)	2.7	2.7	3.8

NA Not available.
Source: Statistical Abstract of the United States (annual).

Table 416.-- CREDIT UNIONS: 1983 TO 1988

[As of December 31]

Year	Number of credit unions	Assets (dollars)	Shares (dollars)	Number of credit union members
1983	144	1,085,367,118	983,903,868	422,240
1984	142	1,237,993,756	1,113,377,400	424,459
1985	137	1,535,426,151	1,390,984,301	425,973
1986	136	1,906,350,845	1,742,031,717	443,015
1987	136	2,145,826,560	1,938,767,096	461,944
1988	136	2,305,569,314	2,059,966,207	479,610

Source: Hawaii Credit Union League, records.

Table 417.-- HAWAII RESIDENTS HOLDING SHARES IN U.S. PUBLIC CORPORATIONS OR INVESTMENT COMPANIES: 1959 TO 1985

Year	Shareholders	Year	Shareholders
1959	13,000	1980	175,000
1962	18,000	1981	174,000
1965	39,000	1983	234,000
1970	74,000	1985	256,000
1975	58,000		

Source: New York Stock Exchange, Inc., Shareownership 1985, p. 24, and similar reports for earlier years.

Table 418.-- GENERAL EXCISE TAX BASE FOR INTEREST AND INSURANCE SOLICITORS: 1978 TO 1988

[In thousands of dollars. Data are on a cash basis accounting]

Year 1/	Interest	Insurance solicitors	Year 1/	Interest	Insurance solicitors
1978 2/	89,448	36,420	1984	207,430	236,086
1979	133,242	174,676	1985	206,256	167,438
1980	174,790	303,264	1986	200,656	140,120
1981	205,989	255,321	1987	258,015	198,442
1982	205,443	199,512	1988 3/	230,817	160,936
1983	184,895	214,972			

1/ Calendar year in which reported, including "prior years" reports. Income received in December is reported the following January, hence these annual totals generally refer to an "income year" ended November 30.

2/ Partly estimated.

3/ Data exclude tax base for unallocated collections, distributed for earlier years.

Source: Hawaii State Department of Taxation, "General Excise and Use Tax Base" (annual tabular release).

Table 419.-- INSURANCE BUSINESS TRANSACTED IN HAWAII: 1970 TO 1987

[Includes data for all insurance companies, life or other, authorized in Hawaii]

Year	Number of companies authorized, Dec. 31	Premiums paid ($1,000)	Losses, claims and benefits paid ($1,000)	Cumulative net investments in Hawaii Dec. 31 1/ ($1,000)
1970	469	246,986	114,011	977,535
1971	485	276,707	119,880	1,168,952
1972	502	303,954	124,502	1,282,566
1973	517	316,897	132,102	1,354,145
1974	534	331,146	155,272	1,487,228
1975	537	380,480	170,561	1,634,549
1976	542	421,545	192,547	1,771,556
1977	546	488,437	225,675	1,944,507
1978	556	555,392	240,320	2,076,291
1979	579	617,571	280,598	2,234,252
1980	594	682,306	352,515	2,561,217
1981	640	755,298	352,523	2,565,525
1982	699	795,786	436,094	2,731,165
1983	720	872,156	605,722	2,725,453
1984	730	967,105	530,200	2,704,084
1985	752	1,132,282	592,550	2,680,318
1986	752	1,307,192	611,105	3,060,664
1987	782	1,456,508	694,331	2,864,352

1/ Does not include balances in Hawaii banks.

Source: Hawaii State Department of Commerce and Consumer Affairs, Report of the Insurance Commissioner of Hawaii (annual).

Table 420.-- LIFE INSURANCE BUSINESS TRANSACTED IN HAWAII: 1970 TO 1987

Year	Number of companies, 1/ Dec. 31	Insurance written 2/ ($1,000)	Insurance in force, Dec. 31 ($1,000)	Premiums ($1,000)	Losses, claims, and benefits paid ($1,000)
1970	223	1,376,907	7,441,077	98,360	40,267
1971	233	1,565,272	8,127,837	106,524	45,301
1972	239	1,484,039	8,788,361	115,491	44,661
1973	262	1,935,643	9,433,897	120,229	47,980
1974	270	2,614,259	11,383,173	130,102	54,009
1975	279	2,046,479	12,650,488	138,597	53,291
1976	283	2,269,602	13,560,838	148,977	65,312
1977	285	2,432,658	14,680,847	161,725	63,040
1978	291	2,814,838	15,803,154	172,999	64,391
1979	311	2,999,500	17,122,778	186,487	74,627
1980	318	3,694,867	19,131,180	197,394	82,333
1981	346	4,995,919	21,287,888	204,049	98,942
1982	379	4,928,880	23,138,362	214,728	120,827
1983	390	6,230,150	26,133,708	227,848	141,096
1984	401	6,294,746	28,060,450	257,611	168,487
1985	417	6,965,896	30,478,068	302,554	199,101
1986	424	8,118,761	33,463,090	309,649	175,205
1987	446	8,202,902	37,429,250	354,952	217,871

1/ Authorized in Hawaii, including fraternal benefit societies.

2/ Face value of insurance policies; includes insurance revived, increased, or transferred.

Source: Hawaii State Department of Commerce and Consumer Affairs, Report of the Insurance Commissioner of Hawaii (annual), and records.

Table 421.-- INSURANCE PREMIUMS AND LOSSES PAID, BY CLASS OF INSURANCE: 1987

[Dollars]

Class of insurance	Premiums	Losses, claims, and benefits paid
All classes	1,456,507,594	694,330,583
Life 1/	350,582,473	216,923,269
Fraternal	4,369,671	947,728
Fire, marine, casualty, and miscell.:		
Accident and health	105,341,462	56,089,595
Fire	17,635,878	4,455,243
Allied lines 2/	14,225,925	1,033,723
Homeowners multiple peril	52,646,826	17,983,185
Commercial multiple peril	64,775,526	20,146,835
Private passenger auto no-fault	64,598,949	40,972,372
Other private passenger auto liability	148,456,935	87,290,165
Commercial auto no-fault	6,538,255	4,391,512
Other commercial auto liability	54,570,284	31,552,104
Private passenger auto physical damage	92,249,432	45,512,329
Commercial auto physical damage	13,968,794	5,591,219
Workers' compensation	232,093,112	100,288,527
Other liability	99,195,178	26,939,353
Medical malpractice	19,082,858	5,108,962
Financial Guaranty	713,301	70,055
Glass	193,619	34,475
Burglary and theft	602,734	61,532
Boiler and machinery	1,198,769	206,881
Fidelity and surety	16,619,082	5,091,770
Ocean marine	5,131,981	2,616,023
Inland marine	13,787,653	6,716,376
Earthquake	291,224	...
All other 3/	31,898,167	9,299,972
Surplus lines	45,739,506	5,007,378

1/ Excludes annuities and $2,175,844 in premiums for insurance on nonresidents.

2/ Includes extended coverage; tornado, windstorm and hail; sprinkler and water damage; explosion, riot and civil commotion; growing crops; flood; rain; and damage from aircraft and vehicle.

3/ Aircraft (all risks); title, credit, mortgage guaranty; livestock; farmowners multiple peril; contact lens.

Source: Hawaii State Department of Commerce and Consumer Affairs, Report of the Insurance Commissioner of Hawaii, 1988, p. 6.

Table 422.-- INSURANCE BUSINESS TRANSACTED IN HAWAII, BY LOCATION OF HOME OFFICE: 1987

[Money amounts in millions of dollars. For insurance companies authorized to do business in Hawaii]

Subject	All companies	Domestic companies 1/	Foreign companies 2/	Alien companies 3/ (U.S. business only)
Number of companies, Dec. 31 ...	782	20	744	18
Financial condition, Dec. 31:				
Assets	1,269,967.6	1,057.9	1,239,730.4	29,179.3
Liabilities exc. capital and surplus	1,135,053.1	839.8	1,106,724.9	27,488.4
Policyholder's surplus inc. capital	135,013.8	218.1	133,105.5	1,690.1
Capital	3,949.1	24.4	3,901.5	23.2
Net gain or loss	-872.0	60.2	-336.5	-595.6
Hawaii business:				
Direct premiums written	1,546.2	432.1	1,072.5	41.6
Claims and benefits paid	781.7	206.4	550.9	24.4
Investments in Hawaii, Dec. 31 4/	2,864.4	219.9	2,620.3	24.2
Mortgage loans (principal indebtedness)	875.5	111.6	760.1	3.8
Collateral loans (amount lent)	2.1	1.9	.2	-
State and county bonds 5/	706.7	24.9	681.8	-
Utilities stocks and bonds 5/	285.8	32.4	244.8	8.6
Industrial and misc. stocks and bonds 5/	809.3	42.9	754.8	11.6
Real estate 5/	185.0	6.2	178.7	.2
Balances in Hawaii banks	23.0	17.7	5.1	.2

1/ A domestic insurer is one formed under the laws of Hawaii.

2/ A foreign insurer is one formed under the laws of any State of the United States (including the District of Columbia and Commonwealth of Puerto Rico) other than Hawaii.

3/ An alien insurer is one formed under the laws of a nation other than the United States.

4/ Does not include balances in Hawaii banks.

5/ Market value less encumbrances for real estate.

Source: Hawaii State Department of Commerce and Consumer Affairs, Report of the Insurance Commissioner of Hawaii, 1988, pp. 10, 12, 14, 15, 36 and 37.

Table 423.-- HEALTH PLANS: 1985 TO 1988

Subject	1985	1986	1987	1988
BestCare: 1/				
Members covered, Dec. 31 2/	...	203	3,197	5,970
Premium revenue 3/ ($1,000)	...	49	1,573	2,948
Hawaii Medical Service Association: 4/				
Persons covered, Dec. 31 2/	567,210	567,287	555,394	557,594
Membership dues 3/ ($1,000)	330,045	378,387	433,826	485,955
Island Care:				
Persons covered, Dec. 31 2/	13,526	14,924	16,771	18,469
Membership dues 3/ ($1,000)	8,233	10,193	12,970	13,638
Kaiser Foundation Health Plan:				
Persons covered--2/				
Annual average	137,359	136,608	141,396	155,539
Dec. 31	138,051	137,146	147,067	162,060
Membership dues 3/ ($1,000)	81,759	90,287	102,719	108,191
Commercial carrier premiums for accident and health insurance ($1,000)	92,015	93,152	105,341	(NA)

NA Not available.
1/ Enrollment began August 1986.
2/ Subscribers and dependents, whether on a group or individual basis.
3/ Includes both employers' and employees' contributions.
4/ Includes both Straub Plan (7,083 members in 1988) and Pacific Health (5).

Source: Data provided by BestCare, Hawaii Medical Service Association, Island Care, and Kaiser Foundation Health Plan, Inc.; Report of the Insurance Commissioner (annual).

Table 424.-- HEALTH INSURANCE COVERAGE OF PERSONS UNDER 65 YEARS OF AGE: 1986

[Excludes persons in the armed forces, members of their families, and persons living in group quarters, as well as those 65 years and over. Detail adds to more than indicated totals and sub-totals because of multiple coverage of some persons]

Subject	Persons under 65	Private coverage			Public cover-age 1/	No health insur-ance 2/
		Total	Employer	Other private		
Number (1,000) ..	833	672	587	154	104	107
Percent	100.0	80.6	70.4	18.5	12.5	12.9

1/ Medicaid, Medicare, or CHAMPUS.

2/ For the nation as a whole, 17.8 percent of the nonelderly population was without health insurance. Among the 50 States (plus D.C.), Hawaii ranked 11th lowest in percent without coverage.

Source: Employee Benefit Research Institute, Uninsured in the United States: The Nonelderly Population Without Health Insurance, 1986 (1988), pp. 26-29. Based on the March 1987 Current Population Survey.

Table 425.-- FIRES AND FIRE LOSSES, FOR OAHU: 1979 TO 1989

[Years ended June 30]

Year	Fires	Losses ($1,000)	Year	Fires	Losses ($1,000)
1979	8,497	8,027	1985	6,377	10,700
1980	8,749	11,898	1986	4,367	9,172
1981	7,564	15,071	1987	4,835	9,582
1982	6,518	11,394	1988	2,966	6,632
1983	6,982	10,751	1989	3,327	13,272
1984	6,666	11,363			

Source: 1984-1985 Annual Report of the Fire Department, City and County of Honolulu, p. 26, and records.

Table 426.-- FIRE ALARMS, DEATHS, AND LOSSES, BY COUNTIES: 1987 TO 1989

[Years ended June 30]

Subject	State total	Hono-lulu	Hawaii	Kauai	Maui
1987					
Fires	6,036	4,835	558	205	438
Fire deaths	6	-	1	1	4
Fire losses ($1,000) ..	14,010	9,582	2,599	290	1,539
1988					
Fires	4,817	2,966	599	216	1,036
Fire deaths	7	5	-	2	-
Fire losses ($1,000) ..	13,351	6,632	4,454	802	1,463
1989					
Fires	5,137	3,327	625	245	940
Fire deaths	12	11	1	-	-
Fire losses ($1,000) ..	19,546	13,272	3,384	707	2,183

Source: Compiled by Hawaii State Department of Business and Economic Development from Honolulu Fire Department, Hawaii County Fire Department, Kauai Fire Department, and Maui County Department of Fire Control.

Table 427.-- CHARACTERISTICS OF BUSINESS ESTABLISHMENTS: 1976 TO 1986

[Data refer to establishments with taxable payrolls. Coverage excludes government and self-employed workers]

Year	Number of employees 1/	Payroll ($1,000)		Number of establishments, by employment-size class 2/		
		First quarter	Annual	Total	1 to 4	5 to 9
1976	252,252	577,390	2,412,122	17,271	9,135	3,359
1977	263,079	630,090	2,637,726	18,660	9,942	3,741
1978	282,256	699,638	2,966,228	19,222	9,849	3,991
1979	302,763	809,676	3,451,980	20,621	10,568	4,285
1980	314,106	930,312	3,849,636	21,125	10,928	4,346
1981	312,195	984,003	4,092,561	21,264	10,969	4,337
1982	309,546	1,026,323	4,264,863	21,655	11,095	4,592
1983	308,627	1,094,458	4,505,090	24,519	13,320	5,039
1984	318,635	1,192,429	4,824,535	25,093	13,588	5,225
1985	331,196	1,268,106	5,271,750	25,742	14,058	5,261
1986	345,167	1,382,381	5,790,531	26,212	14,070	5,474

Year	Number of establishments by employment-size class 2/--Con.						
	10 to 19	20 to 49	50 to 99	100 to 249	250 to 499	500 to 999	1,000 or more
1976	2,332	1,544	566	248	49	26	12
1977	2,397	1,642	589	257	52	27	13
1978	2,695	1,721	602	264	57	28	15
1979	2,866	1,864	653	281	54	31	19
1980	2,868	1,906	666	311	55	26	19
1981	2,973	1,905	663	309	63	28	17
1982	2,921	2,005	648	296	56	24	18
1983	3,093	2,001	667	305	51	26	17
1984	3,167	1,990	709	313	52	34	15
1985	3,181	2,084	734	314	58	37	15
1986	3,306	2,128	784	331	68	33	18

1/ For week including March 12.

2/ Data for 1983 and later years refer to establishments active anytime during the year; data for 1982 and earlier years refer to establishments in business at the end of the year.

Source: U.S. Bureau of the Census, County Business Patterns (annual).

Table 428.-- CHARACTERISTICS OF BUSINESS ESTABLISHMENTS, BY COUNTIES: 1985 AND 1986

[Excludes government employees and self-employed persons]

Year and county	Number of establishments 1/	Number of employees 2/	Payroll ($1,000)	
			First quarter	Annual
1985				
State total	25,742	331,196	1,268,106	5,271,750
Hawaii	2,657	24,783	82,766	337,579
Honolulu	19,340	265,094	1,045,038	4,353,005
Kauai	1,209	13,454	44,643	189,828
Maui	2,528	27,781	95,326	389,441
Statewide	8	84	333	1,697
1986				
State total	26,212	345,167	1,382,381	5,790,531
Hawaii	2,716	26,639	90,502	369,845
Honolulu	19,561	274,517	1,136,476	4,758,710
Kauai	1,271	14,652	49,124	212,265
Maui	2,656	29,278	105,793	448,267
Statewide	8	81	486	1,444

1/ Data refer to establishments active anytime during the year.
2/ For week including March 12.
Source: U.S. Bureau of the Census, County Business Patterns, 1986, Hawaii, CBP-86-13 (August 1988), p. 17.

Table 429.-- CHARACTERISTICS OF BUSINESS ESTABLISHMENTS, BY MAJOR INDUSTRY GROUP: 1985 AND 1986

[Excludes government and self-employed workers]

Major industry group	Number of establishments 1/	Number of employees 2/	Annual payroll ($1,000)
1985			
Total	25,742	331,196	5,271,750
Agricultural services, forestry, fisheries	225	1,697	20,521
Mining	14	186	5,317
Contract construction	1,703	17,022	451,539
Manufacturing 3/	988	20,914	374,476
Food and kindred products	219	8,444	150,299
Apparel and other textile products	176	3,496	35,953
Transportation, other public utilities	1,088	30,447	676,649
Wholesale trade	1,827	18,281	364,839
Retail trade 3/	6,704	92,080	968,922
Eating and drinking places	1,951	37,875	297,029
Finance, insurance, and real estate	3,152	29,939	539,699
Services 3/	8,145	116,442	1,796,602
Hotels and other lodging places	250	33,225	468,142
Health services	1,921	21,361	465,064
Nonclassifiable establishments	1,896	4,188	55,185
1986			
Total	26,212	345,167	5,790,531
Agricultural services, forestry, fisheries	231	1,759	23,516
Mining	15	172	5,475
Contract construction	1,742	18,417	507,934
Manufacturing 3/	1,007	20,988	415,480
Food and kindred products	221	8,208	159,513
Apparel and other textile products	197	3,837	42,237
Transportation, other public utilities	1,135	31,968	739,870
Wholesale trade	1,837	19,037	399,569
Retail trade 3/	6,959	96,074	1,050,293
Eating and drinking places	2,051	40,449	322,485
Finance, insurance, real estate	3,204	31,727	626,702
Services 3/	8,457	121,398	1,969,545
Hotels and other lodging places	261	33,067	515,285
Health services	1,997	23,251	518,393
Nonclassifiable establishments	1,625	3,627	52,148

Footnotes and source on next page.

Table 429.-- CHARACTERISTICS OF BUSINESS ESTABLISHMENTS, BY MAJOR INDUSTRY GROUP: 1985 AND 1986 - Con.

1/ Data refer to establishments active anytime during the year.
2/ For week including March 12.
3/ Includes subgroups not shown separately.
Source: U.S. Bureau of the Census, County Business Patterns, 1986, Hawaii, CBP-86-13 (August 1988), pp. 1-2.

Table 430.-- CHARACTERISTICS OF BUSINESS ESTABLISHMENTS, BY EMPLOYMENT-SIZE CLASS: 1986

[Excludes government employees and self-employed persons]

Employment-size class	Number of establishments	Number of employees	Annual payroll ($1,000)
Total	26,212	345,167	5,790,531
1 to 4	14,070	24,755	491,604
5 to 9	5,474	36,081	525,851
10 to 19	3,306	44,480	665,574
20 to 49	2,128	64,429	961,375
50 to 99	784	53,028	831,504
100 to 249	331	48,654	863,536
250 to 499	68	23,932	420,013
500 to 999	33	22,386	379,504
1,000 or more	1/ 18	27,422	651,571

1/ 1,000-1,499 employees, 12 establishments; 1,500-2,499, 5 establishments; 2,500-4,999, 1 establishment.
Source: U.S. Bureau of the Census, County Business Patterns, 1986, Hawaii, CBP-86-13 (August 1988), pp. 3, 12, and 16.

Table 431.-- REGISTERED CORPORATIONS AND PARTNERSHIPS: 1986 TO 1989

[Excludes eleemosynary corporations]

Subject	1986	1987	1988	1989
Domestic (Hawaii) corporations:				
Formed 1/	3,010	3,191	3,459	3,791
Dissolved or merged 2/	2,183	2,221	239	583
On record, June 30	27,189	28,159	31,379	34,587
Foreign (non-Hawaii) corporations:				
Qualified 1/	596	626	692	812
Withdrawn, merged, or cancelled 2/	371	351	185	228
On record, June 30	4,545	4,820	5,327	5,911
Partnerships:				
Registered 1/	1,557	1,392	1,367	1,409
Dissolved or cancelled 2/	1,505	1,297	645	688
On record, June 30	8,876	8,971	9,693	10,414

1/ Annual totals for fiscal years ended June 30.

2/ Annual totals for fiscal years ended June 30. Annual fluctuations may partly reflect the sporadic purging of defunct firms from the registration files.

Source: Hawaii State Department of Commerce and Consumer Affairs, Business Registration Division, September 18, 1989.

Table 432.-- MAJOR CORPORATE FAMILIES HEADQUARTERED IN HAWAII: 1989

[Includes major ultimate parent companies headquartered in Hawaii and meeting the following criteria: Conduct business from two or more locations; net worth of $500,000 or more; controlling interest in one or more subsidiary companies]

Ultimate parent company	Affiliates 1/ In Hawaii	Affiliates 1/ On Mainland	Sales (million dollars)
Parent companies with Mainland affiliates:			
Alexander & Baldwin, Inc.	5	5	536
Amelco Corporation	3	2	99
Persis Corporation	2	1	59
Waterhouse Properties, Inc.	1	1	20
Parent companies without Mainland affiliates (53 companies)	138	-	2/ 2,872

NA Not available.

1/ Excludes divisions but includes all subsidiary companies.

2/ Excludes sales of 16 companies not reporting sales.

Source: Dun & Bradstreet, Inc., Dun's Marketing Services, America's Corporate Families 1989, Vol. 1 (1989).

Table 433.-- CHARACTERISTICS OF CORPORATIONS, PARTNERSHIPS, AND PROPRIETORSHIPS: 1981, 1983, AND 1985

[Money amounts in millions of dollars]

Subject	1981	1983	1985
CORPORATIONS 1/			
Number of corporations	16,585	18,420	19,513
Taxable	7,536	8,040	8,708
Nontaxable	9,049	10,380	10,805
Business receipts	17,878	21,072	22,714.3
Taxable corporations	10,941	12,368	12,554.7
Nontaxable corporations	6,937	8,704	10,159.6
Taxable income, excluding net losses 2/	706.5	682.8	845.7
PARTNERSHIPS			
Number of partnerships	7,107	7,378	7,398
With net profit	3,331	3,453	3,389
With net loss	3,776	3,925	4,009
Number of partners	105,983	83,313	3/ 80,208
Business receipts	1,661.8	1,737.9	1,918.1
Businesses with net profit	1,018.0	1,065.8	1,294.0
Businesses with net loss	643.8	672.2	624.1
Net profit reported	311.8	358.1	431.1
Net loss reported	346.0	366.3	439.1
PROPRIETORSHIPS			
Number of proprietorships	54,473	54,182	59,475
With net profit	33,475	36,330	41,510
With net loss	20,998	17,852	17,965
Business receipts	868.5	1,236.2	1,579.1
Businesses with net profit	717.3	1,050.6	1,439.4
Businesses with net loss	151.2	185.7	139.7
Net profit reported	184.4	254.0	321.3
Net loss reported	58.4	63.9	53.3

1/ Includes domestic, foreign, and small business corporations.

2/ Includes taxable income reported by small business corporations, taxable to individual stockholders only.

3/ For Oahu only.

Source: Hawaii State Department of Taxation, Hawaii Income Patterns, Corporation, Proprietorship, Partnership (biennial), and records.

Table 434.-- TOTAL REVENUES AND NET INCOME OF MAJOR CORPORATIONS: 1988 AND 1987

[In thousands of dollars. Includes top 10 in each category in 1988]

Company	Total revenues		Net income	
	1988	1987	1988	1987
Castle & Cooke 2/	2,469,208	1,855,134	112,282	97,430
Pacific Resources	881,785	954,985	40,091	6,145
Hawaiian Electric Industries ...	732,716	635,086	55,008	37,809
Alexander & Baldwin	701,908	655,276	153,418	120,353
Bancorp Hawaii	629,796	491,581	74,902	53,134
Hawaiian Telephone	494,590	458,361	49,520	55,091
First Hawaiian 3/	384,614	333,323	43,339	35,495
HAL, Inc.	354,013	299,114	-8,755	-8,776
Maui Land & Pine	122,893	110,702	9,269	5,438
FirstFed America	80,753	77,409	11,045	10,462

1/ AMFAC, listed first last year (Data Book 1988, table 463), was acquired in November 1988 by JMB Realty Company of Chicago. Other major corporations no longer incorporated in Hawaii are C. Brewer, Theo H. Davies, and Aloha Airgroup.

2/ Now headquartered in Los Angeles, although still incorporated in Hawaii.

3/ Incorporated in Delaware.

Source: Kit Smith, "Castle & Cooke is on top of Hawaii's corporate heap," Sunday Star-Bulletin and Advertiser, April 23, 1989, p. B-4.

Table 435.-- LARGEST PUBLIC AND PRIVATE CORPORATIONS: MOST RECENT AVAILABLE YEAR

[Data may include sales and employment on the Mainland or abroad]

Rank	Company	Year founded 1/	Sales (million dollars) 2/	Employees
1	Castle & Cooke	851	2,469	42,000
2	Amfac	1849	1,777.6	8,000
3	Pacific Resources Inc.	1904/1970	881	955
4	Hawaiian Electric Industries	1891/1983	732.7	3,216
5	Alexander & Baldwin	1870/1900	701.9	3,237
6	Bancorp Hawaii	1897/1971	629.8	3,500
7	Duty Free Shoppers (Hawaii Div.) ..	1962	535	1,450
8	Chevron USA Inc. (Hawaii Division)	1904	524.7	278
9	GTE Hawaiian Tel	1883	494.6	4,200
10	Hawaii Medical Service Assn. (HMSA)	1938	486	1,040

1/ If two years are given, the first is the founding date of the original company, the second is when it became a holding company, was sold, or legally changed its name.

2/ Latest available data. May be fiscal year or calendar year.

Source: Tom Yoneyama, "The Hawaii Business Top 250," Hawaii Business, August 1989, pp. 88 and 90.

Table 436.-- NET INCOME OR LOSS AND TOTAL REVENUES OF SELECTED COMPANIES: 1987 AND 1988

[Based on 1988 ranks for reporting companies]

Company	Net income or loss ($1,000)		Revenues ($1,000,000)	
	1987	1988	1987	1988
Largest net incomes:				
Alexander & Baldwin	120,353	153,400	655.3	701.9
Castle & Cooke	97,430	112,282	1,749.2	2,469.0
Bancorp Hawaii	53,943	74,902	492.8	629.8
Largest net losses:				
Pacific International Services Corporation	1/ 1,435	6,127	50.7	58.5
HMSA	13,902	6,400	433.8	486.0
HAL Inc.	8,776	8,755	299.0	354.0

1/ Net income.
Source: Tom Yoneyama, "The Hawaii Business Top 250," Hawaii Business, August 1989, p. 71.

Table 437.-- ENTERPRISES, ESTABLISHMENTS, AND EMPLOYMENT, BY EMPLOYMENT PER FIRM: 1986

[See headnote to table 438]

Employees per firm	Enterprises	Establishments	Establishment employment
Total	15,787	21,755	364,163
Under 20	13,629	14,699	72,910
20 to 499	2,089	4,611	126,972
500 and over	69	2,445	164,281

Source: U.S. Small Business Administration, Office of Advocacy, Handbook of Small Business Data 1988, pp. 107, 125, 141, and 157.

Table 438.-- ENTERPRISES, ESTABLISHMENTS, AND EMPLOYMENT, FOR ALL BUSINESSES AND THOSE WITH FEWER THAN 20 EMPLOYEES: 1976 TO 1986

[From Small Business Data Base. Excludes government employment. Covers approximately 93 percent of full-time business activity]

Subject	1976	1978	1980	1982	1984	1986
ALL BUSINESSES						
Enterprises	13,470	16,220	16,755	16,498	16,004	15,787
Establishments	18,104	21,298	22,138	21,724	21,336	21,755
Establishment employment .	278,080	298,016	339,183	335,919	345,482	364,163
FEWER THAN 20 EMPLOYEES PER FIRM						
Enterprises	11,655	14,287	14,594	14,304	13,857	13,629
Establishments	12,600	15,355	15,653	15,372	14,856	14,699
Establishment employment .	61,594	72,879	75,656	74,909	72,831	72,910
PERCENT FEWER THAN 20 EMPLOYEES						
Enterprises	86.53	88.08	87.10	86.70	86.58	86.33
Establishments	69.60	72.10	70.71	70.76	69.63	67.57
Establishment employment .	22.15	24.45	22.31	22.30	21.08	20.02

Source: U.S. Small Business Administration, Office of Advocacy, Handbook of Small Business Data 1988, pp. 125, 141, 157.

Table 439.-- NET JOB CHANGE, BY COMPONENTS OF CHANGE: 1976 TO 1986

[See headnote to table 438]

Component of change	Number
Net job change	100,696
Percent increase	32.3
Births	193,447
Expansions	68,257
Contractions	36,518
Deaths	124,489

Source: U.S. Small Business Administration, Office of Advocacy, Handbook of Small Business Data 1988, p. 258.

Table 440.-- SMALL BUSINESS SHARE OF PRIME CONTRACT DOLLARS, BY MAJOR PRODUCER SERVICE CATEGORY: FISCAL YEAR 1987

[Data refer to contracts in which the principal place of performance is Hawaii]

Major producer service category	Amount to small business ($1,000)	Percent to small business
All products and services	264,969	50.9
Research and development	2,825	17.4
Construction	177,851	76.7
Other services	79,740	33.2
Supplies and equipment	4,583	14.6

Source: The State of Small Business: A Report of the President Transmitted to the Congress 1989, pp. 176-178.

Table 441.-- MINORITY-OWNED BUSINESSES: 1982

[Includes partnerships in which at least half of the partners were members of a specified minority group, and corporations in which 50 percent or more of the shares were owned by such persons. For detail by industry divisions and counties, see source]

Minority 1/	Number of firms		Sales and receipts ($1,000)	
	Total	With paid employees	Total	With paid employees
All minorities 2/	30,129	3,142	2,443,206	2,092,348
Black	330	23	5,857	3,209
Hispanic origin	759	58	17,913	11,634
Mexican	144	14	7,965	6,989
Puerto Rican	278	15	3,748	1,889
Other Central or South American	61	2	1,342	(D)
European Spanish	195	21	3,121	1,777
Other Hispanic	81	5	1,737	(D)
Other minorities	29,040	3,061	2,419,436	2,077,505
American Indian	43	3	1,189	696
Asian Indian	74	26	1,585	1,174
Chinese	4,369	556	538,131	477,987
Japanese	17,327	1,852	1,104,690	904,563
Korean	1,240	185	59,291	41,363
Vietnamese	126	5	1,677	485
Other Asian	155	43	220,528	218,452
Filipino	3,341	157	50,446	20,781
Hawaiian 3/	2,077	167	44,113	23,337
Other Pacific Islander	169	60	395,418	387,272
Other minorities	119	6	2,368	1,396

D Withheld to avoid disclosing data for individual companies.

1/ Persons of mixed race were instructed to report the race with which they most closely identified. Whites (Caucasians), although only 34.4 percent of the 1980 population of Hawaii, were treated as the "majority" group for census purposes.

2/ Not corrected for double-counting. In this survey, it was possible for a minority-owned firm to be classified in more than one minority group.

3/ For the United States as a whole, Hawaiians owned 3,305 firms (291 with paid employees) with sales and receipts of $85,579,000 ($48,714,000 for those with paid employees).

Source: U.S. Bureau of the Census, 1982 Survey of Minority-Owned Business Enterprises, MB82-1, Black (August 1985), p. 19; MB82-2, Hispanic (September 1986), p. 48; and MB82-3, Asian Americans, American Indians, and Other Minorities (October 1986), pp. 5 and 58.

Table 442.-- WOMEN-OWNED BUSINESSES: 1982

[Includes partnerships in which at least half of the partners were women, and corporations in which 50 percent or more of the shares were owned by women]

Subject	State total	Oahu
All firms:		
Number	16,821	12,506
Sales and receipts ($1,000)	356,498	264,298
Firms with paid employees:		
Number	1,248	928
Employees for pay period incl. March 12	5,538	4,055
Annual payroll ($1,000)	39,356	28,313
Sales and receipts ($1,000)	206,581	153,445

Source: U.S. Bureau of the Census, 1982 Economic Censuses, WB82-1, Women-Owned Businesses (April 1986), pp. 13 and 33.

Table 443.-- BUSINESS CLIMATE INDEXES: 1988 AND 1989

Index	Number of subindexes		Rank 1/		Grade	
	1988	1989	1988	1989	1988	1989
Performance	3	3	12	2	B	A
Business vitality	3	3	35	38	C	D
Capacity	4	4	15	13	B	B
Policy	7	6	39	24	D	C

1/ Among the 50 States.

Source: The Corporation for Enterprise Development, Making the Grade: The 1988 Development Report Card for the States (April 1988) and The 1989 Development Report Card for the States (March 1989).

Table 444.-- BUSINESS STARTS, 1986 AND 1987, AND FAILURES, 1987 AND 1988 BY INDUSTRY SECTOR AND LOCATION

Location and industry sector	Starts		Failures	
	1986	1987	1987	1988 1/
Firms, State total	1,071	997	176	179
Honolulu	594	573	99	77
Rest of State	477	424	77	102
Employment, State total	6,680	6,211	(NA)	(NA)
Honolulu	3,944	3,516	(NA)	(NA)
Rest of State	2,736	2,695	(NA)	(NA)
Firms, all sectors	1,071	997	176	179
Agriculture, forestry, fishing ...	31	20	2	2
Mining	-	-	-	-
Construction	104	83	16	11
Manufacturing	83	80	5	2
Transportation, public utilities .	52	47	5	5
Wholesale trade	133	108	11	11
Retail trade	326	370	35	18
Finance, insurance, real estate ..	56	62	6	3
Services	285	221	92	126
Unclassifiable	1	6	4	1

NA Not available.

1/ Preliminary.

Source: The Dun & Bradstreet Corporation, Business Starts Record 1986/1987 (1988), pp. 3 and 16, and Business Failure Record 1987 Final 1988 Preliminary (1989), pp. 4, 5, and 16.

Section 16

COMMUNICATIONS

This section presents statistics on the usage, finances, and operations of the Postal Service and of various communications media: telephone, radio, television, newspapers, periodicals, and books. Sections 12 and 15 contain employment and payroll data for communications establishments.

Hawaii is served by all major communications media. In 1989 it had 148 post offices and stations handling 434 million pieces of mail and accounting for postal receipts of $129 million. There were 530,000 telephone access lines in service, 375,000 telephone homes, about 2.5 billion local calls originated, and uncounted millions of interisland and transpacific calls in 1988. The 49 commercial, public and educational radio stations in the Islands in 1989 included 28 on the regular broadcast band and 21 FM stations. The State also had 19 television stations (17 commercial and 2 public), including satellites but excluding translators. Eight cable TV companies served 307,000 subscribers. An estimated 97 percent of all households in the State had television sets, and the average prime-time TV audience in May 1989 numbered 178,000 households. Island publishers printed nine daily newspapers, numerous magazines and other periodicals, and a wide diversity of books. Newspaper circulation reported by the two English-language dailies on Oahu averaged 194,000 in 1988-1989. Statistics on fax machines and cellular telephones are unavailable.

The major sources for statistics on communications are the reports and records of the U.S. Postal Service, Federal Communications Commission, the CATV Division of the Hawaii State Department of Commerce and Consumer Affairs, Hawaiian Telephone Company, Audit Bureau of Circulations, A. C. Nielsen Co., and *Hawaii Media Guide*. Earlier figures appear in *Historical Statistics of Hawaii*, Section 18. Data on communications for other states and for the nation as a whole are carried in *Statistical Abstract of the United States: 1989*, Section 18.

Table 445.-- POSTAL SERVICE: 1970 TO 1989

[For fiscal years ended June 30 through 1976 and September 30 thereafter]

Fiscal year	Number, end of fiscal year 1/		Gross postal receipts ($1,000)	Pieces of mail 2/ (millions)
	Post offices	Stations		
1970	80	...	20,840	187
1971	80	...	21,976	201
1972	78	...	23,434	215
1973	77	...	27,100	226
1974	76	...	29,663	233
1975	76	...	33,549	238
1976	76	...	37,433	242
1977	76	...	43,790	249
1978	76	...	49,198	267
1979	76	...	55,267	276
1980	76	...	58,413	298
1981	76	...	67,055	293
1982	76	...	77,424	290
1983	76	3/ 50	80,943	305
1984	76	4/ 54	84,733	317
1985	76	64	94,975	339
1986	76	67	102,440	360
1987	75	69	107,946	394
1988	75	72	119,740	400
1989	74	74	129,177	434

1/ Includes all 1st-, 2nd-, 3rd-, and 4th-class post offices and both classified and contract stations (classified stations are those staffed by career postal employees; contract stations, those operated under a contractual agreement between the Postal Service and an individual contractor). Station counts not available before 1983.

2/ Originating in Hawaii. Mail originating elsewhere is excluded.

3/ April 15.

4/ June 30.

Source: U.S. Postal Service, Honolulu Division, records.

Table 446.-- NUMBER OF POST OFFICES AND STATIONS, BY ISLANDS: OCTOBER 19, 1989

Island	Total	Post offices 1/			Stations	
		1st class	2nd class	3rd class	Classified 2/	Contract 3/
State total ..	148	34	28	12	34	40
Hawaii	36	9	13	4	2	8
Maui	18	8	2	-	2	6
Lanai	1	-	1	-	-	-
Molokai	5	1	-	4	-	-
Oahu	67	12	4	1	28	22
Kauai	21	4	8	3	2	4
Niihau	-	-	-	-	-	-

1/ There are no fourth-class post offices in the State.
2/ Staffed by career postal employees.
3/ Operated under a contractual agreement between the Postal Service and an individual contractor.

Source: U.S. Postal Service, Honolulu Division, data supplied October 19, 1989.

Table 447.-- RESIDENCES, POST OFFICE BOXES, AND BUSINESSES SERVED BY THE U.S. POSTAL SERVICE, BY ISLANDS: 1987

[As of September 15]

Subject	State total	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai
Residences ...	310,529	23,743	23,282	-	165	257,465	5,874
P. O. boxes ..	93,974	26,307	13,966	876	1,703	37,098	14,024
Businesses ...	27,049	2,843	2,948	-	-	20,309	949

Source: U.S. Postal Service, San Mateo Postal Data Center, records.

Table 448.-- TELEPHONE ACCESS LINES, BY ISLAND AND TYPE: 1981 TO 1988

[As of December 31. Access lines represent the lines connecting customers to the network regardless of the ownership of the customer premises equipment. Business access includes key and coin system lines]

Year	All access lines	By island		By type		
		Oahu	Other islands	Residence	Business	Other types
1981	431,893	324,968	106,925	314,355	95,000	22,538
1982	445,452	334,150	111,302	323,588	98,691	23,173
1983	458,339	342,094	116,245	332,051	102,923	23,365
1984	472,229	348,936	123,293	339,296	107,830	25,103
1985	479,253	352,674	126,579	342,296	111,792	25,165
1986	493,079	362,083	130,996	350,790	118,002	24,287
1987	520,057	380,227	139,830	363,951	128,197	27,909
1988	530,022	395,685	134,337	375,238	123,409	31,375

Source: Hawaiian Telephone Company, data provided May 15, 1989.

Table 449.-- LOCAL TELEPHONE CALLS: 1978 TO 1988

[In thousands. The number of local calls is affected as central offices are being converted to Electronic Common Control (ECC). ECC records call attempts after the first digit is dialed. Non-ECC offices record the call attempts when the handset is lifted. Also significant in 1981 were an estimated 17 million fewer calls due to the implementation of Directory Assistance Charging. Because of these fundamental changes in data collection, more recent figures are not comparable to earlier years.]

Year	Originating	Completed	Year	Originating	Completed
1978	1,719,200	1,139,829	1984	2,050,778	1,538,084
1979	1,830,954	1,186,458	1985	2,225,943	1,669,457
1980	1,957,427	1,468,070	1986	2,350,538	1,671,233
1981	1,857,938	1,393,454	1987	2,404,035	1,718,885
1982	1,892,430	1,419,322	1988	2,514,066	1,810,128
1983	1,928,486	1,446,365			

Source: Hawaiian Telephone Company, records.

Table 450.-- HAWAIIAN TELEPHONE COMPANY OPERATIONS: 1986 TO 1988

Subject	1986	1987	1988
Operating revenues ($1,000)	440,198	458,361	494,590
Net income ($1,000)	53,001	55,091	49,520
Investment in telephone plant ($1,000)	1,295,424	1,369,130	1,365,093
Total assets ($1,000)	988,121	1,034,040	1,032,628
Invested capital ($1,000)	657,049	698,237	706,428
Access lines	491,973	517,937	543,303
Central offices	96	96	80
Miles of wire	3,273,924	3,365,412	3,452,497
Average daily local calls	6,435,932	6,614,688	6,872,612
Total salaries and wages ($1,000)	135,856	146,136	154,198
Number of employees	4,330	4,485	4,189

Source: GTE Hawaiian Tel, 1988 Annual Report, p. 23.

Table 451.-- CABLE TELEVISION COMPANIES, SUBSCRIBERS, AND REVENUES, BY COUNTIES: 1987 AND 1988

County	Number of companies Dec. 31 1/		Subscribers, Dec. 31		Basic service revenue ($1,000)	
	1987	1988	1987	1988	1987	1988
State total	8	8	265,029	307,432	39,114	43,416
Hawaii	3	3	23,059	24,867	3,718	3,897
Maui	2	2	21,401	36,603	3,805	3,971
Honolulu	2	2	195,438	212,672	29,350	33,063
Kauai	2	2	11,009	11,323	2,242	2,485

1/ State totals are unduplicated figures; one company provided service to both Hawaii and Maui Counties.

Source: Hawaii State Department of Commerce and Consumer Affairs, Cable Television Division, records.

Table 452.-- RADIO AND TELEVISION BROADCASTING STATIONS IN OPERATION, 1929 TO 1989, AND BY COUNTIES, 1989

Date and county	Commercial stations			Non-commercial stations		
	AM	FM	TV 1/	AM	FM	TV 1/
1929: Jan. 1	2	-	-	-	-	-
1944: Jan. 1	4	-	-	-	-	-
1959: Jan. 1	15	1	7	-	2	-
1974: Jan. 1	25	7	10	-	1	2
1989: June 30	28	19	17	-	2	2
COUNTIES: 1989						
Hawaii	5	4	5	-	-	-
Maui	3	6	3	-	-	1
Honolulu 2/	18	8	9	-	2	1
Kauai	2	1	-	-	-	-

1/ Includes satellites but excludes translators and cable television.

2/ Includes one commercial AM station with studio on Oahu but transmitter on Molokai.

Source: Robert C. Schmitt, Historical Statistics of Hawaii (University Press of Hawaii, 1977), p. 482; Federal Communications Commission, Field Operations Bureau, Honolulu, July 17, 1989.

Table 453.-- TELEVISION HOUSEHOLDS, BY GEOGRAPHIC AREA: 1988 AND 1989

Subject	January 1989			January 1988		
	State total	Oahu	Other islands	State total	Oahu	Other islands
All households	351,800	267,200	84,600	343,300	261,900	81,400
With television .	341,810	260,600	81,210	333,380	255,460	77,920
Percent	97.2	97.5	96.0	97.1	97.5	95.7

Source: Nielsen Station Index, Honolulu, Hawaii, February 1988 and February 1989, table 1.

Table 454.-- HOUSEHOLDS AND PERSONS VIEWING TELEVISION BY TIME OF DAY: 1987 TO 1989

[In thousands. Mean number of viewers, Sunday through Saturday]

Year and month	Sign-on to sign-off 7 A.M. to 1 A.M.		Prime time 6:30 P.M. to 10 P.M.	
	Households 1/	Persons 2/	Households 1/	Persons 2/
1987: Feb.	93	158	200	386
May	90	152	182	351
Nov.	87	141	184	335
1988: Feb.	90	150	198	374
May	88	145	184	345
Nov.	89	143	179	319
1989: Feb.	91	143	195	343
May	84	134	178	324

1/ Average number with a TV set turned on.

2/ Average number of persons, 2 years and older, in TV households that are viewing any station.

Source: Nielsen Station Index, Honolulu, Hawaii, Daypart Summary, issued three times annually.

Table 455.-- COMMUNICATION AND COMMUNICATION-RELATED ESTABLISHMENTS: 1986

SIC code	Industry	No. of establishments	SIC code	Industry	No. of establishments
27	Printing and publishing	168	482	Telegraph communic. ...	4
271	Newspapers	21	483	Radio, TV broadcast. ..	41
272	Periodicals	16	489	Commun. services, n.e.c	29
273	Books	9	731	Advertising	59
274	Miscell. publishing .	8	7311	Advertising agencies	45
481	Telephone communic. ...	19			

Source: U.S. Bureau of the Census, County Business Patterns 1986, Hawaii, CBP-86-13 (August 1988), pp. 4-9.

Table 456.-- AVERAGE PAID CIRCULATION OF DAILY AND SUNDAY ENGLISH-LANGUAGE NEWSPAPERS: 1985-86 TO 1988-89

[Averages for 12-month periods ended in March. Foreign-language daily newspapers, not included in this table, are the Hawaii Hochi, Japanese and English; The Korea Times and Han Kook Ilbo, Korean; and United Chinese Press, Chinese]

Newspaper	1985-86	1986-87	1987-88	1988-89
Daily:				
Honolulu Advertiser 1/	84,782	88,551	93,088	98,025
Honolulu Star-Bulletin 2/	102,734	99,724	97,950	96,074
Hawaii Tribune-Herald (Hilo) 3/	19,946	20,290	20,328	20,360
West Hawaii Today (Kailua-Kona) 4/	7,680	8,298	8,820	9,757
Maui News (Wailuku) 3/	15,506	15,199	15,805	16,722
Garden Island (Lihue) 5/	9,479	9,500	9,525	8,737
Sunday morning:				
Sunday Star-Bulletin and Advertiser	195,344	199,684	203,358	203,752
Hawaii Tribune-Herald (Hilo)	22,663	22,944	23,209	23,146
West Hawaii Today (Kailua-Kona)	7,431	8,273	8,961	10,025
Maui News (Wailuku)	14,684	15,117	16,326	17,660
Garden Island (Lihue)	8,884	9,300	9,528	8,899

1/ Mornings, Monday through Saturday.
2/ Afternoons, Monday through Saturday.
3/ Afternoons, Monday through Friday.
4/ Mornings, Monday through Friday.
5/ Afternoons, 4 times weekly (Monday, Wednesday, Thursday, and Friday).

Source: Audit Bureau of Circulations data provided to DBED by newspaper publishers.

Table 457.-- PERIODICALS PUBLISHED IN HAWAII: 1985

Frequency	Newspapers: English	Newspapers: Foreign language	Magazines and other periodicals 1/
Daily, 5 to 7 times weekly 2/	6	3	-
2 to 4 times weekly	-	-	1
Weekly	9	1	15
Semi-monthly or biweekly	3	3	18
Monthly	2	-	53
1 to 10 times annually	-	-	40

1/ Includes regularly published magazines, company and in-house publications, labor publications, educational publications, military and federal publications, and special interest publications. Does not include publications that are updated as required, or other irregular publications.

2/ For more recent data, see table 456.

Source: Aloha United Way, Hawaii Media Guide, April 1985.

Table 458.-- BOOKS AND SCHOLARLY JOURNALS PUBLISHED BY THE UNIVERSITY OF HAWAII PRESS: 1987 TO 1989

Year	Published titles 1/: Cumulative total	Published titles 1/: In print	New books and journals published 2/: Books	New books and journals published 2/: Scholarly journals	Volumes sold 2/	Book sales revenues 2/ (dollars)
1987	826	643	43	8	279,017	1,497,901
1988	868	672	42	6	324,185	1,962,537
1989	918	701	50	9	402,606	2,222,341

1/ As of June 30. Excludes journals.

2/ Year ended June 30.

Source: The University of Hawaii Press, Annual Report (annual) and records.

Table 459.-- POSTAGE RATES AND NEWSPAPER PRICES, FOR HONOLULU: 1979 TO 1989

[In cents. As of July 1]

Year	Domestic first-class postage rates			Newspaper price 1/	
	Letters		Postal and post cards		
	First ounce	Each added ounce		Daily	Sunday
1979	15	13	10	25	60
1980	15	13	10	25	60
1981	18	17	12	25	75
1982	20	17	13	25	100
1983	20	17	13	25	100
1984	20	17	13	25	100
1985	22	17	14	35	100
1986	22	17	14	35	100
1987	22	17	14	35	100
1988	25	20	15	35	125
1989	25	20	15	35	125

1/ Street sales, for the Honolulu Advertiser, Honolulu Star-Bulletin, and Sunday Star-Bulletin and Advertiser.

Source: Postal rates from Statistical Abstract of the United States: 1989, p. 543, as updated. Newspaper rates from nameplates.

Table 460.-- HAWAIIAN TELEPHONE COMPANY RATES FOR SPECIFIED TYPES OF SERVICE, FOR HONOLULU: 1979 TO 1989

[In dollars. As of July 1. Including state and federal excise tax where applicable]

Year	Local call, pay phone	Honolulu to Hilo		Honolulu to California		Monthly charge, indiv. res. line 3/
		Direct dialing 1/	Through operator 2/	Direct dialing 1/	Through operator 2/	
1979 ..	0.15	0.90	0.90	1.61	2.55	11.74
1980 ..	0.15	1.06	1.89	1.64	2.60	11.63
1981 ..	0.15	1.06	1.89	1.64	2.60	11.63
1982 ..	0.15	1.05	1.87	1.74	2.63	11.51
1983 ..	0.15	1.07	1.91	1.77	3.37	11.31
1984 ..	0.15	1.07	1.91	1.66	3.25	11.74
1985 ..	0.15	1.14	2.06	1.54	3.13	12.77
1986 4/	0.25	1.45	2.06	1.32	2.91	14.10
1987 4/	0.25	1.11	2.00	0.98	2.53	14.10
1988 4/	0.25	1.04	2.00	0.92	2.47	14.10
1989 4/	0.25	1.00	2.00	0.76	3.26	14.10

1/ Daytime calls, first three minutes.

2/ Station-to-station operator-handled daytime weekday calls, first three minutes.

3/ Telephone rental included through February 5, 1983, and excluded thereafter. In 1989, the monthly rental charge for a standard dial desk-top telephone was $2.70, and the federal subscriber line charge was $3.20.

4/ AT&T Communications, Inc., rates quoted for Honolulu to California calls.

Source: Hawaiian Telephone Company, records, and AT&T Communications, Inc., records.

Section 17

ENERGY AND SCIENCE

This section presents statistics on energy production and consumption, the electric and gas utility industries, research and development, and scientific resources. Related series are cited in Sections 12 (on utility employment), 14 (prices), and 18 (gasoline consumption).

Total energy consumption in 1987 amounted to 235 trillion British thermal units, compared with 233 trillion Btu a decade earlier. Transportation, including aviation fuels, accounted for 54 percent of the 1987 total. Total expenditures for fuels and electricity in 1986 were $1.56 billion.

Electricity sales amounted to 7.7 billion kilowatt-hours in 1988, a total that has increased 29 percent since 1978. Manufactured gas sales reached 33 million therms in 1988, six percent below the figure ten years earlier. Residential rates in 1988 averaged 8.8 cents per kilowatt-hour and $1.55 per therm, both significantly less than the corresponding rates a few years earlier. Average residential use (7,011 kWh and 189 therms in 1988) has declined since the early 1970s. By 1986, almost 11 percent of the housing units in the State had solar heating devices.

The liquid fuel tax base for 1988 was approximately 1.2 billion gallons, compared with 917 million in 1978. The 1988 total included 358 million gallons of gasoline, 702 million of aviation fuel, and 152 million of diesel oil. The average price for automotive gasoline was $1.29 per gallon during 1988.

The State is well served with scientific resources. Especially noteworthy is the cluster of large telescopes used for astronomical observations at the summits of Mauna Kea and Haleakala--twelve major facilities, including those under construction. Federal research and development obligations in Hawaii totaled $64 million in 1987. Fifty-two patents were granted to Hawaii residents in 1987.

Information on energy and science can be obtained from reports and records of the U.S. Department of Energy, U.S. Patent and Trademark Office, U.S. Bureau of Labor Statistics, National Science Foundation, Hawaii State Department of Taxation, Hawaii State Department of Commerce and Consumer Affairs and its Division of Consumer Advocacy, the DBED Energy Division, UH Institute for Astronomy, and individual utility companies. Historical Statistics of Hawaii, Section 19, presents data for earlier years. Data for the nation as a whole can be found in the Statistical Abstract of the United States: 1989, Sections 19 and 20.

Table 461.-- CONSUMPTION OF ENERGY, BY SOURCE (PHYSICAL UNITS): 1960 TO 1987

Year	Petroleum 1/ (1,000 barrels)	Hydro-electric power 2/ (million kWh)	Geothermal energy (million kWh)	Coal (1,000 short tons)	Other 3/ (million kWh)
1960	17,497	27	0	0	0
1961	20,721	24	0	0	0
1962	19,733	20	0	0	0
1963	20,705	23	0	0	0
1964	22,117	115	0	0	0
1965	23,177	105	0	0	0
1966	25,804	112	0	0	2
1967	29,081	108	0	0	0
1968	32,363	94	0	0	30
1969	33,815	100	0		29
1970	34,768	108	0	0	24
1971	37,416	89	0	0	15
1972	38,372	91	0	0	18
1973	39,339	95	0	0	22
1974	37,265	92	0	0	30
1975	37,588	89	0	0	25
1976	37,990	93	0	0	29
1977	40,249	86	0	0	26
1978	40,851	84	0	0	0
1979	44,594	90	0	0	0
1980	43,505	86	0	0	0
1981	38,721	80	0	0	15
1982	35,637	90	0	47	26
1983	36,297	84	0	42	28
1984	36,932	82	21	38	28
1985	39,351	86	19	46	25
1986	38,905	78	18	16	0
1987	39,459	82	13	63	0

1/ For data by type of petroleum, see source.

2/ Includes industrial and electric utility production.

3/ Wood, waste, wind, photovoltaic, and solar thermal energy sources consumed at electric utilities to produce electricity. Excludes natural gas and nuclear electric power.

Source: U.S. Department of Energy, Energy Information Administration, State Energy Data Report, Consumption Estimates, 1960-1987 (April 1989), p. 93.

Table 462.-- CONSUMPTION OF ENERGY, BY SOURCE (TRILLION BTU): 1960 TO 1987

Year	Total energy consumed 1/	Petroleum 2/	Hydroelectric power 3/	Geothermal energy	Coal	Natural gas	Other types 4/
1960	98.4	98.1	0.3	0.0	0.0	0.0	0.0
1961	117.3	117.0	0.3	0.0	0.0	0.0	0.0
1962	112.2	112.0	0.2	0.0	0.0	0.0	0.0
1963	118.3	118.0	0.2	0.0	0.0	0.0	0.0
1964	127.9	126.7	1.2	0.0	0.0	0.0	0.0
1965	134.2	133.1	1.1	0.0	0.0	0.0	0.0
1966	149.1	147.9	1.2	0.0	0.0	0.0	(Z)
1967	168.1	167.0	1.1	0.0	0.0	0.0	0.0
1968	187.3	186.0	1.0	0.0	0.0	0.0	0.3
1969	194.8	193.5	1.0	0.0	0.0	0.0	0.3
1970	200.4	199.0	1.1	0.0	0.0	0.0	0.3
1971	215.1	214.0	0.9	0.0	0.0	0.0	0.2
1972	221.0	219.9	0.9	0.0	0.0	0.0	0.2
1973	226.7	225.5	1.0	0.0	0.0	0.0	0.2
1974	214.6	213.3	1.0	0.0	0.0	0.0	0.3
1975	216.7	215.5	0.9	0.0	0.0	0.0	0.3
1976	219.3	218.0	1.0	0.0	0.0	0.0	0.3
1977	232.6	231.5	0.9	0.0	0.0	0.0	0.3
1978	236.0	235.2	0.9	0.0	0.0	0.0	0.0
1979	255.9	255.0	0.9	0.0	0.0	0.0	0.0
1980	253.2	249.3	0.9	0.0	0.0	3.0	0.0
1981	226.4	222.6	0.8	0.0	0.0	2.8	0.2
1982	208.5	203.3	0.9	0.0	1.1	2.8	0.3
1983	210.3	205.4	0.9	0.0	1.0	2.7	0.3
1984	218.7	213.8	0.8	0.4	0.9	2.4	0.3
1985	233.3	227.9	0.9	0.4	1.1	2.7	0.3
1986	230.9	226.7	0.8	0.4	0.4	2.7	0.0
1987	234.6	229.1	0.8	0.3	1.6	2.8	0.0

Z Less than 0.05.

1/ Totals may not equal sum of components due to independent rounding.

2/ For data by type of petroleum, see source.

3/ Includes industrial and electric utility production.

4/ Wood, waste, wind, photovoltaic, and solar thermal energy sources consumed at electric utilities to produce electricity.

Source: U.S. Department of Energy, Energy Information Administration, State Energy Data Report, Consumption Estimates, 1960-1987 (April 1989), p. 93.

Table 463.-- CONSUMPTION OF ENERGY BY END-USE SECTOR: 1960 TO 1987

[Trillion Btu. Revised from Data Book 1988, table 492]

Year	Consumption 1/				Input at electric utilities
	Residential	Commercial	Industrial	Transportation	
1960	7.3	5.2	20.7	65.2	17.6
1961	7.5	5.4	26.9	77.4	19.4
1962	8.0	5.5	28.9	69.8	21.4
1963	8.9	6.0	29.8	73.5	24.2
1964	9.6	6.6	32.4	79.2	26.7
1965	10.1	6.8	34.7	82.6	27.6
1966	10.8	7.4	35.8	95.1	29.7
1967	12.1	8.0	38.8	109.2	31.3
1968	13.1	8.8	38.7	126.7	35.0
1969	14.9	9.8	40.8	129.2	38.7
1970	16.4	11.6	43.6	128.8	43.2
1971	17.8	11.4	43.5	142.4	47.7
1972	19.6	12.7	48.9	139.8	54.1
1973	20.0	13.5	49.4	143.8	55.6
1974	20.3	13.3	49.4	131.7	57.5
1975	19.6	13.8	49.9	133.4	58.8
1976	21.3	15.3	51.0	131.7	62.5
1977	21.8	16.8	52.7	141.3	65.2
1978	21.8	17.4	52.2	144.6	66.8
1979	22.9	18.1	58.5	156.4	67.7
1980	23.2	20.8	62.4	146.7	69.7
1981	23.0	18.8	60.6	124.1	69.9
1982	21.5	17.6	67.1	102.2	66.9
1983	22.1	17.8	52.6	117.8	68.6
1984	21.0	18.6	47.5	131.7	70.6
1985	20.7	19.3	48.4	144.9	70.0
1986	20.6	23.1	57.8	129.5	72.9
1987	22.1	29.4	57.4	125.7	76.6

1/ Excludes small quantities of energy sources for which consistent historical data are not available, such as solar energy obtained by the use of thermal and photovoltaic collectors; wind energy; and geothermal, biomass, and waste energy other than that consumed at the electric utilities.

Source: U.S. Department of Energy, Energy Information Administration, State Energy Data Report, Consumption Estimates, 1960-1987 (April 1989), pp. 94-98.

Table 464.-- PER CAPITA ENERGY CONSUMPTION, RESIDENT AND DE FACTO: 1960 TO 1988

[For definitions of resident and de facto population, see table 3, footnotes 1 and 3]

Year	Total energy consumed (trillion Btu)	Electricity sales (1,000 kWh)	Per capita consumption			
			Total energy (million Btu)		Electricity (kWh)	
			De facto	Resident	De facto	Resident
1960	99.15316	1,602,197	152.3	154.6	2,460	2,498
1961	116.97162	1,766,031	175.0	177.6	2,643	2,681
1962	111.79039	1,966,105	161.2	163.6	2,834	2,876
1963	117.84984	2,077,571	169.7	172.7	2,991	3,045
1964	127.23438	2,284,275	178.9	181.8	3,212	3,264
1965	132.72839	2,445,025	185.5	188.6	3,418	3,474
1966	147.99105	2,639,866	204.2	208.3	3,643	3,716
1967	167.45867	2,832,469	225.5	231.8	3,814	3,920
1968	186.50628	3,109,256	245.8	253.9	4,097	4,233
1969	193.83665	3,426,052	248.9	258.4	4,399	4,567
1970	198.62790	3,758,094	248.7	257.4	4,706	4,870
1971	213.94859	4,167,127	256.8	266.9	5,002	5,198
1972	219.48417	4,562,568	252.3	265.0	5,245	5,508
1973	224.98611	4,867,850	249.6	264.2	5,401	5,716
1974	213.57387	5,113,906	231.2	246.1	5,536	5,892
1975	238.35719	5,334,755	252.6	269.0	5,654	6,020
1976	240.51954	5,615,210	247.9	266.0	5,787	6,210
1977	254.54840	5,831,610	256.5	277.2	5,877	6,351
1978	259.11475	6,004,891	255.5	278.1	5,920	6,446
1979	278.45009	6,197,426	267.0	292.1	5,944	6,501
1980	273.88094	6,345,531	259.4	282.7	6,010	6,549
1981	273.32263	6,424,016	256.8	278.8	6,035	6,554
1982	272.11290	6,332,707	250.0	272.8	5,819	6,348
1983	279.03031	6,425,578	250.2	273.9	5,762	6,308
1984	276.36995	6,606,255	242.7	266.8	5,802	6,377
1985	266.21778	6,635,158	231.6	253.2	5,773	6,310
1986	271.05620	7,025,739	229.9	254.6	5,959	6,599
1987	282.71678	7,298,178	235.8	261.2	6,088	6,742
1988	312.77000	7,719,029	256.6	284.8	6,333	7,029

Source: Hawaii State Department of Business and Economic Development, State Energy Resources Coordinator Annual Report, July 1, 1987 to June 30, 1988, tables 21 and 23, and records.

Table 465.-- PRIMARY ENERGY USE, BY SOURCE: 1986 AND 1987

[Thousands of barrels of oil equivalent]

Year	All sources	Petroleum	Biomass	Solar water heating	Hydro electricity	Coal	Geothermal	Wind
1986	46,869	42,341	3,812	344	168	79	29	96
1987	49,023	44,837	3,529	349	154	-	23	131

Source: Hawaii State Department of Commerce and Consumer Affairs, records; Hawaii State Department of Business and Economic Development, records; Hawaiian Sugar Planters' Association, records.

Table 466.-- ENERGY CONSUMPTION, BY SOURCE: 1973 TO 1988

[Trillion Btu]

Year	Total	Petroleum	Biomass	Solar water heating	Hydro-electricity	Coal	Wind	Geothermal
1973 ...	250.5421	223.7861	25.7560	1.0000	-	-	-	-
1974 ...	237.2659	212.2739	23.9920	1.0000	-	-	-	-
1975 ...	238.3572	213.4572	24.0000	0.9000	-	-	-	-
1976 ...	240.5195	215.5195	24.0000	1.0000	-	-	-	-
1977 ...	254.5484	229.5889	24.0000	0.9000	-	0.0595	-	-
1978 ...	259.1148	233.5357	24.4000	0.9000	-	0.2791	-	-
1979 ...	278.4501	253.0344	24.0000	0.9000	-	0.5157	-	-
1980 ...	273.8809	248.0109	24.2000	0.9000	-	0.7700	-	-
1981 ...	273.3226	245.5086	24.0900	0.7356	-	1.1185	-	1.8700
1982 ...	272.1129	244.3151	23.9200	1.0939	0.1572	1.3567	-	1.2700
1983 ...	279.0303	250.6283	24.8500	0.8865	0.1886	1.5269	-	0.9500
1984 ...	276.3700	248.4026	24.3650	0.7796	0.2075	1.7683	-	0.8470
1985 ...	266.2178	238.6470	23.1430	0.9808	0.1886	2.1327	0.1697	0.9560
1986 ...	271.0562	242.5857	23.9670	1.0562	0.1823	2.1644	0.6036	0.4970
1987 ...	282.7168	256.4061	22.1840	0.9670	0.1446	2.1914	0.8236	-
1988 ...	312.7693	285.4040	23.5990	0.9887	0.1639	2.1931	0.4211	-

Source: Hawaii State Department of Business and Economic Development, records.

Table 467.-- ELECTRICITY GENERATION BY SOURCE: 1981 TO 1988

[Millions of kWh generated]

Year	Total	Petroleum	Biomass	Hydro-electric	Geo-thermal	Wind	Coal
1981	7,615	6,913	628	74	-	-	-
1982	7,467	6,729	612	110	16	-	-
1983	7,689	6,914	667	89	19	-	-
1984	7,841	7,073	669	78	21	-	-
1985	7,821	7,001	670	98	19	17	16
1986	8,251	7,412	646	100	18	58	17
1987	8,368	7,577	605	93	14	79	-
1988	8,952	8,115	681	98	16	42	-

Source: Hawaii State Department of Commerce and Consumer Affairs, records; Hawaii State Department of Business and Economic Development, records; Hawaiian Sugar Planters' Association, records.

Table 468.-- ELECTRICITY PRODUCTION, BY SOURCE, BY ISLANDS: 1988

[Million kWh]

Island	Total	Petrol-eum	Biomass	Hydro-electric	Wind	Geothermal
State total ...	8,952	8,115	681	98	42	16
Hawaii	701	417	230	16	21	16
Maui	906	702	178	26	(Z)	-
Lanai	5	5	-	-	-	-
Molokai	30	29	1	-	-	
Oahu	6,860	6,728	111	-	21	-
Kauai	450	234	161	55	(Z)	-

Z Less than 500,000 kWh.

Source: Hawaii State Department of Business and Economic Development, Energy Division, records; Department of Commerce and Consumer Affairs, Division of Consumer Advocacy, records.

Table 469.-- EXPENDITURES FOR FUELS AND ELECTRICITY, BY SOURCE: 1970 TO 1988

[Millions of dollars]

Year	Total energy expend.	Fuel expenditures			Less: electric utility fuel expend.	Plus: electric purch. by end-user
		Total	Electric utility	Other		
1970	282.7	215.9	17.3	198.6	17.3	84.1
1971	320.8	246.8	24.8	222	24.8	98.8
1972	332.4	250.4	27.3	223.1	27.3	109.3
1973	391.1	300.9	36.3	264.6	36.3	126.5
1974	534.5	433.2	49.8	383.4	49.8	151.1
1975	669.9	546.1	91.9	454.2	91.9	215.7
1976	735.6	600	100.4	499.6	100.4	236
1977	844.5	696.5	123.5	573	123.5	271.5
1978	932.2	767.8	149.3	618.5	149.3	313.7
1979	1,261.3	1,083.7	177	906.7	177	354.6
1980	1,721.3	1,529.8	267.8	1,262	267.8	459.3
1981	2,195.2	1,947.7	451.5	1,496.2	451.5	699
1982	2,153.8	1,869.6	439.4	1,430.2	439.4	723.6
1983	2,019.9	1,730.1	369.3	1,360.8	369.3	659.1
1984	2,048.4	1,724.8	379.3	1,345.5	379.3	702.9
1985	1,921.6	1,586.6	337.6	1,249.0	337.6	672.6
1986	1,564.0	1,147.3	224.6	922.7	224.6	641.3
1987	1,575.1	1,176.2	203.7	972.5	203.7	602.6
1988 1/ .	1,664.1	1,314.6	238.0	1,076.6	238.0	587.5

1/ Provisional.

Source: Hawaii State Department of Business and Economic Development, Division of Energy, records.

Table 470.-- EXPENDITURES FOR FUELS AND ELECTRICITY, BY SECTORS: 1970 TO 1986

[Millions of dollars]

Year	Total fuel	Residential		Commercial and industrial		Transport: fuel	Electric utilities: fuel
		Fuel	Elect.	Fuel	Elect.		
1970	215.9	5.5	34.1	18.9	50.0	174.2	17.3
1971	246.8	8.7	38.8	17.9	60.0	195.4	24.8
1972	250.4	6.1	42.6	20.5	66.7	196.5	27.3
1973	300.9	10.5	48.7	24.4	77.8	229.7	36.3
1974	443.2	10.4	57.1	44.7	94.0	328.3	49.8
1975	546.1	7.4	76.9	45.8	138.8	401.0	91.9
1976	600.0	12.7	84.0	45.9	152.0	441.0	100.4
1977	696.5	13.9	92.9	55.0	178.6	504.1	123.5
1978	767.8	13.3	105.8	52.6	207.9	552.6	149.3
1979	1,083.7	26.2	118.9	102.4	235.7	778.1	177.0
1980	1,529.8	19.5	146.4	135.4	312.9	1,107.1	267.8
1981	1,947.7	20.6	214.6	232.4	484.4	1,243.2	451.5
1982	1,869.6	26.2	222.4	283.6	501.2	1,120.4	439.4
1983	1,730.1	22.9	205.9	288.1	453.2	1,049.8	369.3
1984	1,724.8	20.6	217.4	192.1	485.5	1,132.8	379.3
1985	1,586.6	20.6	213.5	100.8	459.1	1,127.6	337.6
1986	1,147.3	13.8	195.8	65.8	445.6	843.1	224.6

Source: Hawaii State Department of Business and Economic Development, Division of Energy, unpublished estimates.

Table 471.-- ELECTRIC UTILITIES: 1978 TO 1988

Year	Customers, Dec. 31			Installed capacity, Dec. 31 (kW)	Power sold (1,000 kWh)		
	Total	Residential	Other		Total	Residential	Other
1978 ..	284,064	244,863	39,201	1,487,490	6,004,891	1,799,024	4,205,867
1979 ..	293,061	252,898	40,163	1,502,840	6,197,426	1,851,457	4,345,969
1980 ..	301,544	260,358	41,186	1,514,180	6,345,531	1,852,984	4,492,547
1981 ..	305,927	265,042	40,885	1,652,380	6,424,016	1,855,837	4,568,179
1982 ..	313,009	270,712	42,297	1,644,980	6,332,707	1,801,297	4,531,410
1983 ..	319,449	276,194	43,255	1,578,780	6,425,578	1,814,336	4,611,242
1984 ..	324,384	280,518	43,866	1,578,780	6,606,255	1,837,954	4,768,301
1985 ..	330,407	285,117	45,290	1,567,230	6,635,158	1,879,027	4,756,131
1986 ..	337,563	291,222	46,341	1,553,580	7,025,739	1,959,447	5,066,292
1987 ..	347,085	299,758	47,327	1,535,700	7,297,905	2,069,859	5,228,046
1988 ..	354,887	306,375	48,512	1,570,410	7,719,029	2,148,275	5,570,754

Year	Average annual use (kWh) 1/		Average rate (dollars per kWh)		Revenues ($1,000)		
	Residential	Other	Residential	Other	Total	Residential	Other
1978 ..	7,347	107,290	.05883	.04943	313,722	105,846	207,876
1979 ..	7,321	108,208	.06420	.05424	354,595	118,862	235,733
1980 ..	7,117	109,079	.07901	.06964	459,251	146,397	312,854
1981 ..	7,002	111,732	.11563	.10605	699,031	214,584	484,447
1982 ..	6,654	107,133	.12348	.11061	723,622	222,423	501,199
1983 ..	6,569	106,606	.11348	.09828	659,089	205,889	453,200
1984 ..	6,552	108,702	.11831	.10181	702,899	217,447	485,452
1985 ..	6,590	105,015	.11361	.09653	672,600	213,478	459,122
1986 ..	6,728	109,326	.09294	.07505	562,345	182,110	380,234
1987 ..	6,905	110,466	.09431	.07792	602,553	195,198	407,355
1988 ..	7,011	114,832	.08829	.07141	587,528	189,689	397,839

1/ Based on number of customers at end of year.

Source: Hawaii State Department of Commerce and Consumer Affairs, Division of Consumer Advocacy, records.

Table 472.-- ELECTRIC UTILITIES, BY ISLANDS: 1988

County or island	Customers, Dec. 31			Installed capacity, Dec. 31 (kW)	Power sold (1,000 kWh)		
	Total	Resi-dential	Other		Total	Resi-dential	Other
State total	354,887	306,375	48,512	1,570,410	7,719,029	2,148,275	5,570,754
Oahu	244,965	214,429	30,536	1,258,000	6,095,707	1,570,898	4,524,809
Hawaii	46,301	38,412	7,889	116,500	612,330	242,855	369,475
Kauai	21,548	18,069	3,479	59,800	308,094	103,494	204,600
Maui County	42,073	35,465	6,608	136,110	702,898	231,028	471,869
Lanai	894	773	121	3,710	8,608	3,743	4,865
Maui	38,550	32,544	6,006	121,200	668,028	216,529	451,498
Molokai	2,629	2,148	481	11,200	26,262	10,756	15,506

County or island	Average annual use (kWh) 1/		Average rate (dollars per kWh)		Revenues ($1,000)		
	Resi-dential	Other	Resi-dential	Other	Total	Resi-dential	Other
State total	7,011	114,832	0.08829	0.07141	587,528	189,689	397,839
Oahu	7,325	148,179	0.07972	0.06410	415,317	125,245	290,071
Hawaii	6,322	46,834	0.11371	0.10381	65,974	27,616	38,358
Kauai	5,727	58,810	0.12088	0.11842	36,740	12,511	24,229
Maui County	6,514	71,408	0.10525	0.09574	69,497	24,316	45,181
Lanai	4,841	40,206	0.15588	0.14427	1,285	583	702
Maui	6,653	75,174	0.09972	0.09153	62,922	21,592	41,330
Molokai	5,007	32,237	0.19900	0.20308	5,290	2,141	3,149

1/ Based on number of customers at end of year.

Source: Hawaii State Department of Commerce and Consumer Affairs, Division of Consumer Advocacy, records.

Table 473.-- GAS UTILITIES: 1978 TO 1988

[Excludes bottled gas]

Year	Customers, Dec. 31			Gas sold (1,000 therms)		
	Total	Residential	Other	Total	Residential	Other
1978 ...	33,413	29,091	4,322	34,919	7,388	27,532
1979 ...	33,309	29,014	4,295	35,264	7,326	27,937
1980 ...	33,019	28,825	4,194	34,705	7,030	27,675
1981 ...	32,421	28,343	4,078	32,396	6,422	25,975
1982 ...	32,905	28,979	3,926	32,224	6,329	25,895
1983 ...	32,880	28,933	3,947	31,307	6,338	24,970
1984 ...	32,643	28,859	3,784	30,928	5,853	25,075
1985 ...	32,988	29,253	3,735	31,203	5,911	25,292
1986 ...	33,369	29,678	3,691	31,122	5,762	25,360
1987 ...	33,895	30,198	3,697	32,408	5,880	26,528
1988 ...	34,103	30,450	3,653	32,733	5,780	26,952

Year	Average annual use (therms) 1/		Average rate (dollars per therm)		Revenues ($1,000)		
	Residential	Other	Residential	Other	Total	Residential	Other
1978 ...	254	6,370	.91647	.71792	26,536	6,770	19,766
1979 ...	253	6,505	1.09260	.89221	32,931	8,006	24,925
1980 ...	244	6,599	1.46583	1.25951	45,162	10,305	34,857
1981 ...	227	6,369	1.72585	1.50091	50,069	11,083	38,986
1982 ...	218	6,596	1.73311	1.43891	48,229	10,969	37,260
1983 ...	219	6,326	1.79719	1.44022	47,352	11,390	35,962
1984 ...	203	6,627	1.78958	1.37488	44,949	10,474	34,475
1985 ...	202	6,772	1.76934	1.33821	44,305	10,459	33,846
1986 ...	194	6,871	1.57151	1.12027	37,465	9,055	28,410
1987 ...	195	7,176	1.57204	1.10494	38,556	9,244	29,312
1988 ...	189	7,378	1.54961	1.07840	38,023	8,957	29,066

1/ Based on number of customers at end of year.

Source: Hawaii State Department of Commerce and Consumer Affairs, Division of Consumer Advocacy, records.

Table 474.-- GAS UTILITIES, BY ISLANDS: 1988

[Excludes bottled gas]

Island	Customers, Dec. 31			Gas sold (therms)		
	Total	Residential	Other	Total	Residential	Other
State total	34,103	30,450	3,653	32,732,633	5,780,362	26,952,271
Oahu	31,613	28,331	3,282	29,689,364	5,341,799	24,347,565
Hawaii	1,850	1,540	310	2,183,745	326,809	1,857,936
Kauai	277	277	-	56,922	56,922	-
Maui	363	302	61	802,602	54,832	747,770
Molokai	-	-	-	-	-	-
Lanai	-	-	-	-	-	-

Island	Average annual use (therms) 1/		Average rate (dollars per therm)		Revenues ($1,000)		
	Residential	Other	Residential	Other	Total	Residential	Other
State total	189	7,378	1.54961	1.07840	38,023	8,957	29,066
Oahu	188	7,418	1.56757	1.08791	34,862	8,374	26,488
Hawaii	212	5,990	1.32453	1.00575	2,300	433	1,868
Kauai	205	-	1.36795	-	78	78	-
Maui	181	12,258	1.32977	0.94918	783	73	710
Molokai	-	-	-	-	-	-	-
Lanai	-	-	-	-	-	-	-

1/ Based on number of customers at end of year.

Source: Hawaii State Department of Commerce and Consumer Affairs, Division of Consumer Advocacy, records.

Table 475.-- SERVICE PROVIDED BY HAWAIIAN ELECTRIC CO., INC., ON OAHU: 1982 TO 1988

Year	Number of customers, Dec. 31		Net input 1/ (1,000 kWh)	Power sold (1,000 kWh)	Average annual residential use 2/ (kWh)	Average residential rate (dollars per kWh)	Generating capability (kW) Dec. 31
	Total	Residential only					
1982 ..	222,636	194,468	5,441,941	5,164,332	7,068	0.12066	1,347,000
1983 ..	226,070	197,400	5,546,600	5,230,658	7,030	0.10631	1,283,000
1984 ..	228,606	199,722	5,633,940	5,330,931	6,960	0.11032	1,283,000
1985 ..	231,912	202,222	5,637,678	5,336,262	6,997	0.10417	1,283,000
1986 ..	235,742	205,636	5,933,569	5,625,398	7,113	0.08328	1,277,000
1987 ..	241,426	211,277	6,135,382	5,804,298	7,322	0.08591	1,277,000
1988 ..	244,965	214,429	6,439,768	6,095,707	7,386	0.07973	1,258,000

1/ Net generated plus purchased power.
2/ Based on average number of customers during the year.
Source: Hawaiian Electric Co., Inc., records.

Table 476.-- GAS UTILITY SERVICE BY GASCO, INC., FOR OAHU: 1983 TO 1988

Calendar year	Customers, Dec. 31		Gas sold 1/ (1,000 therms)		Average annual residential usage 1/ (therms)
	Total	Residential	Total	Residential	
1983 ...	30,305	26,674	28,795	5,849	219
1984 ...	30,041	26,636	28,190	5,389	202
1985 ...	30,442	27,085	28,255	5,436	201
1986 ...	30,831	27,516	28,137	5,318	193
1987 ...	31,398	28,069	29,345	5,435	194
1988 ...	31,613	28,331	29,689	5,342	189

1/ Includes liquefied petroleum gas.
Source: Gasco, Inc., records.

Table 477.-- LIQUID FUEL TAX BASE: 1978 TO 1988

[In thousands of gallons]

Year reported 1/	All types		Gasoline	Diesel oil	
	Total	Excluding aviation		Non-hwy.	Hwy. use
1978	917,380	444,110	324,702	99,755	15,233
1979	960,837	454,012	324,337	108,460	16,596
1980	939,766	437,222	312,896	101,719	17,765
1981	918,437	428,886	305,886	101,212	15,771
1982	893,288	418,811	308,600	88,312	17,303
1983	919,865	418,217	310,085	86,790	16,440
1984	925,871	440,061	322,410	95,956	17,892
1985	970,555	432,500	327,021	83,147	17,636
1986	1,059,180	456,013	336,559	95,022	19,354
1987	1,206,716	512,974	348,474	137,806	21,207
1988	1,216,828	515,273	357,986	131,292	21,057

Year reported 1/	Liquefied petroleum gas		Aviation fuel	Small boats	
	Off-hwy.	Hwy. use		Gasoline	Diesel oil
1978	1,821	1,216	473,270	445	938
1979	2,213	1,140	506,825	410	856
1980	2,448	1,140	502,544	338	917
1981	2,378	1,136	489,551	424	2,079
1982	2,628	960	474,477	207	802
1983	3,013	1,052	501,648	213	624
1984	2,600	873	485,810	114	215
1985	2,804	1,028	538,055	187	676
1986	2,969	1,031	603,167	163	916
1987	3,135	1,142	693,742	123	1,089
1988	3,012	1,071	701,555	63	792

1/ Liquid fuel sold in a given month is usually reported the following month. Annual totals accordingly refer to fuel sold during a 12-month period ended November 30.

Source: Hawaii State Department of Taxation, "Liquid Fuel Tax Base, Collections and Distribution" (annual report).

Table 478.-- LIQUID FUEL TAX BASE, BY COUNTIES: 1988

[In thousands of gallons]

Type of fuel	State total	City and Co. of Honolulu	County of Maui	County of Hawaii	County of Kauai
Total	1,216,828	1,002,784	92,766	74,210	47,067
Gasoline	357,986	245,931	41,676	47,519	22,860
Diesel oil, non-hwy. ...	131,292	61,631	30,989	15,673	22,999
Diesel oil, hwy. use ...	21,057	15,126	2,102	3,131	698
Liq. pet. gas, off hwy.	3,012	1,921	450	490	152
Liq. pet. gas, hwy. use	1,071	908	74	56	33
Small boats, gasoline ..	63	57	-	6	-
Small boats, diesel oil	792	75	-	717	-
Aviation fuel	701,555	677,135	17,477	6,618	326

Source: Hawaii State Department of Taxation, "Liquid Fuel Tax Base, Collections and Distribution, Calendar Year Ending December 31, 1988" (annual release).

Table 479.-- IMPORTS AND EXPORTS OF CRUDE OIL AND PETROLEUM PRODUCTS: 1988

[1,000 barrels]

Product	Imports			Exports		
	Total	Domestic	Foreign	Total	Domestic	Foreign
Crude oil	41,218	20,755	20,463	-	-	
Refined products	6,651	3,353	3,298	6,829	3,331	3,498
Motor gasoline	193	193	-	187	187	-
Distillates	217	217	-	1,658	1,067	591
Jet fuel 1/	2,677	1,119	1,559	2,160	104	2,056
Residual fuel oil ..	3,563	1,824	1,739	2,524	1,673	851
Other	-	-	-	300	300	-

1/ Excludes imports of 3,686,500 barrels of unknown origin.

Source: Hawaii State Department of Business and Economic Development, Energy Division, records.

Table 480.-- GASOLINE SERVICE STATIONS (SIC 554) WITH PAYROLL, BY COUNTIES: 1982 AND 1987

Year	State total	City and Co. of Honolulu	Hawaii County	Kauai County	Maui County		
					Lanai	Maui	Molokai
1982 1/ ...	366	251	60	22	-	31	2
1987	355	241	52	26	1	34	1

1/ Unrevised data. The revised Statewide total, not available for counties, was 389.

Source: U.S. Bureau of the Census, Census of Retail Trade, Hawaii for 1982 (RC82-A-12, table 8) and 1987 (RC87-A-12, table 5).

Table 481.-- GASOLINE AVERAGE PRICES PER GALLON, FOR OAHU: ANNUAL AVERAGES, 1984 TO 1988

[In dollars. Average prices include all applicable federal, state, and county taxes. For earlier years, 1903-1983, see Data Book 1984, tables 497 and 498]

Period	All types 1/	Leaded regular	Unleaded regular	Unleaded premium
1984	1.450	1.367	1.443	(NA)
1985	1.392	1.274	1.396	(NA)
1986	1.206	1.077	1.221	1.346
1987	1.233	1.099	1.254	1.372
1988	2/ 1.293	1.204	1.273	1.413

NA Not available.

1/ Includes types not shown separately.

2/ The U.S. city average for 1988 was $0.964.

Source: Based on data in the U.S. Bureau of Labor Statistics, CPI Detailed Report (monthly). The 1984-1986 Honolulu prices and 1988 U.S. average are actual values; the 1987 and 1988 Honolulu prices are estimates based on actual prices for the last half of 1986 and CPI(U) changes for gasoline for subsequent years.

Table 482.-- BOILERS AND PRESSURE VESSELS: 1987 AND 1988

Date	Total	Power boilers	Heating boilers	Pressure vessels
1987: Dec. 31 ...	8,517	585	2,479	5,453
1988: Dec. 31 ...	8,508	567	2,458	5,422

Source: Hawaii State Department of Labor and Industrial Relations, Division of Occupational Safety and Health, Boiler and Elevator Inspection Bureau, records.

Table 483.-- ENERGY GENERATED, PURCHASED, SOLD, AND USED BY SUGAR PLANTATIONS, BY ISLANDS: 1987

Subject	State total	Hawaii	Kauai	Maui	Oahu
Electricity (millions of kilowatt-hours)					
Generated 1/	816	201	222	253	40
Purchased	20.44	2.51	2.71	5.92	9.30
Sold	398.94	144.37	106.76	105.17	42.64
Used 2/	439.30	58.72	118.03	155.62	106.93
Gross heat values of boiler fuels (billions of Btu's)					
All fuels	28,239	9,196	6,575	8,100	4,368
Bagasse	23,512	7,879	5,717	6,384	3,532
Fuel oil	4,253	1,314	839	1,495	606
Other fuels	473	3	19	222	230

1/ Includes electricity generated by steam and by hydroelectric or diesel engine generators.

2/ Includes transmission losses and electricity used to operate power plant auxiliaries.

Source: Hawaiian Sugar Planters' Association, Energy Inventory of Hawaiian Sugar Plantations - 1987 (Energy Report 26, February 27, 1989), pp. 5-8.

Table 484.-- STATE TAX CREDITS FOR RESIDENTIAL SOLAR AND HEAT PUMP WATER HEATING SYSTEMS: 1975 TO 1987

[The State allows individual income tax credits for solar energy devices installed after 1974 and heat pump systems installed after 1980. Data exclude commercial, military, and government systems, those installed previously, and those for which no State tax credit was made. Devices in condominiums may be claimed on a pro-rata basis for each housing unit. Federal solar tax credit was discontinued in 1986]

Year installed	Number of claims		Cumulative number of claims		Average solar device cost (dollars)	Total tax credit allowed ($1,000)	
	Solar devices	Heat pumps	Solar devices	Heat pumps		Solar devices	Heat pumps
1975-77	1,101	...	1,101	...	2,135	230	...
1978	4,061	...	5,162	...	2,907	1,120	...
1979	4,375	...	9,537	...	3,031	1,250	...
1980	4,704	...	14,241	...	3,346	1,493	...
1981	6,445	2,013	20,686	2,013	3,500	2,107	164
1982	4,407	3,122	25,093	5,135	3,695	1,512	154
1983	3,148	665	28,241	5,800	3,601	1,076	40
1984	4,464	257	32,705	6,057	3,519	1,482	13
1985	6,740	12	39,445	6,069	3,897	2,616	1
1986	592	22	40,037	6,091	2,230	198	4
1987	354	137	40,391	6,228	3,213	149	14

Source: Hawaii State Department of Taxation, Tax Credits Claimed by Hawaii Residents for 1977-1987.

Table 485.-- PERCENT OF HOUSING UNITS WITH SOLAR OR HEAT PUMP WATER HEATING SYSTEMS: 1977 TO 1987

System	1977	1979	1981	1983	1985	1986	1987
Solar	0.3	2.9	5.9	7.9	10.6	10.6	10.5
Heat pump	(NA)	(NA)	0.6	1.6	1.6	1.6	1.6

NA Not available.

Source: Calculated from cumulative totals (as of Dec. 31) in table 484 and DBED estimates of total housing stock on following April 1 in table 601.

Table 486.-- FEDERAL OBLIGATIONS FOR RESEARCH AND DEVELOPMENT IN HAWAII: 1982 TO 1987

[Millions of dollars. For fiscal years ended September 30]

Type of obligation	1982	1983	1984	1985	1986	1987
Total obligations for R&D	44.5	71.4	53.4	58.7	58.7	64.4
Obligations for R&D plant	0.1	0.1	0.6	0.9	0.6	0.6

Source: National Science Foundation, Federal Funds for Research and Development: Fiscal Years 1987, 1988, and 1989, Volume XXXVII, NSF 89-304 (1989), pp. 100-101.

Table 487.-- R & D EXPENDITURES BY STATE GOVERNMENT: 1987 AND 1988

[$1,000. Fiscal years ended June 30]

State agency	All sources		State sources		Other sources	
	1987	1988	1987	1988	1987	1988
All State govt. ...	116,270	129,424	42,131	44,388	74,139	85,036
University of Hawaii ...	62,231	70,023	23,214	25,284	39,017	44,739
Research Corp. of UH ...	42,000	49,000	8,000	10,000	34,000	39,000
Other State govt.	12,039	10,401	10,917	9,104	1,122	1,297

Source: Hawaii State Department of Business and Economic Development, unpublished survey.

Table 488.-- RESEARCH AND DEVELOPMENT EXPENDITURES AT DOCTORATE-GRANTING INSTITUTIONS: 1983 TO 1987

[Thousands of dollars. For fiscal years ended September 30]

Type of expenditure	1983	1984	1985	1986	1987
Total R&D expenditures	45,401	51,051	54,025	57,383	57,345
Federally financed	27,633	32,701	34,886	35,322	34,472

Source: National Science Foundation, *Academic Science/Engineering: R and D Funds, Fiscal Year 1987*, NSF 89-311, table B-22 and table B-23.

Table 489.-- RESEARCH AND NON-RESEARCH EXTRAMURAL FUNDING, FOR THE UNIVERSITY OF HAWAII: 1984-85 TO 1988-89

[Research and non-research awards received through the Office of Research Administration, University of Hawaii]

Fiscal year	Total		Research		Non-research	
	Awards	Amount (dollars)	Awards	Amount (dollars)	Awards	Amount (dollars)
1984-85 ...	628	53,270,256	385	36,699,412	243	16,570,844
1985-86 ...	643	53,976,468	354	35,750,696	289	18,225,772
1986-87 ...	643	52,360,382	378	35,787,240	265	16,573,142
1987-88 ...	678	61,476,926	417	39,410,637	261	22,066,289
1988-89 ...	777	71,898,382	466	46,990,238	311	24,908,144

Source: Office of Research Administration, University of Hawaii, *1988-1989 Extramural Awards* (1989), p. i.

Table 490.-- TELESCOPES AT THE SUMMITS OF MAUNA KEA AND HALEAKALA: 1988

Location and telescope (diameter in meters)	Year completed	Capital costs (millions of 1986 dollars)	Operating costs, 1988 (million dollars)	Local staff (persons)
Mauna Kea:				
UH 0.61-m.	1969	0.3	0.1	13
UH 0.61-m.	1969	0.3		
UH 2.24-m.	1970	8.0	1.2	
Canada-France-Hawaii (CFHT)	1979	45.0	3.5	43
NASA IRTF 3.0-m.	1979	15.0	1.8	10
UK (UKIRT) 3.8-m.	1979	15.0	1.5	29
James Clerk Maxwell (JCMT)	1986	20.0	1.0	20
Caltech Submillimeter (CSO) 10.4-m.	1986	10.0	1.5	11
W.M. Keck Observatory Optical/IR 10.0-m. 1/	1991	85.0	2.3	35
Haleakala (on UH land):				
Mees Solar Observatory	1956	0.5	0.3	6
Lunar Ranging Facility	1976/84	3.25	0.7	9
Gamma Ray Facility	1985	2.0	0.2	1

1/ Under construction. Figures are projected.

Source: University of Hawaii at Manoa, Institute for Astronomy, data provided July 18, 1988.

Table 491.-- PATENTS ISSUED TO HAWAII RESIDENTS: 1981 TO 1988

[Fiscal years ended September 30. Data include design, plant, and reissue patents]

Fiscal year	Patents	Fiscal year	Patents
1981	49	1985	33
1982	31	1986	37
1983	30	1987	52
1984	43	1988	62

Source: U.S. Department of Commerce, Patent and Trademark Office, Commissioner of Patents and Trademarks Annual Report, Fiscal Year '88, p. 57.

Table 492.-- COMPUTER USE BY OAHU RESIDENTS EMPLOYED OUTSIDE THEIR HOMES: 1988 AND 1989

[Percent. As of March]

Subject	1988	1989
Use of personal computer at place of work	100	100
Always	22	27
Frequently	14	13
Occasionally	15	16
Never	50	44
Facsimile machine (FAX) at place of work	100	100
Yes	41	52
No	46	44
Don't know	13	5
Own a personal computer for use at home	100	100
Yes	25	33
No	75	67

Source: Omnitrak/Hawaii Inc. Polls (400 telephone interviews each) reported in Honolulu Star-Bulletin, May 23, 1989 (p. C-1), May 30, 1989 (p. D-1), and June 6, 1989 (p. D-1).

Section 18

TRANSPORTATION

This section presents statistics relating to public roads, motor vehicles, bicycles, traffic accidents, local public transit, civil aviation, harbors, and water traffic. Other information bearing on transportation appears in Sections 7, 12, 14, and 24.

Motor vehicle registration in Hawaii increased from 584,000 in 1978 to 818,000 in 1988. Vehicle miles rose during the same period from 4.7 billion to 7.4 billion. Hawaii residents purchased 61,000 new passenger cars and 14,000 trucks in 1988. By the end of that year, 635,000 licensed drivers had access to 4,092 miles of streets and highways throughout the State. Bus passengers carried by the Honolulu Mass Transit Lines increased from 68 million in 1978 to 74 million in 1988. Registered bicycles numbered 113,000 in 1987.

Almost all scheduled interisland travel is by air. In 1988, airlines and air taxis reported 9.0 million interisland passengers, some 22 percent more than in 1978, and carried 65,000 tons of cargo. The State has seven commercial airports, 15 general aviation, military or semi-private airports, 12 civilian heliports, 3,400 active pilots, and about 486 active civil aircraft in general aviation.

Rapid growth is similarly evident in transpacific air travel. In 1988, 6,653,000 overseas passengers arrived by air, a 10-year growth of 61 percent. Overseas air cargo received that year exceeded 123,000 tons.

Undocumented State-registered vessels as of December 31, 1988 numbered 14,000, compared with 8,000 in 1970. Median length was 17.3 feet, and four-fifths were stored on land. There were 1,600 documented vessels in the State in 1989, almost triple the 1970 total. Overseas vessels brought 5,815 passengers into the State in 1988. Receipts of cargo in 1986 included 8.5 million tons in overseas cargo and 4.2 million tons in interisland cargo.

The chief source for transportation statistics is the Hawaii State Department of Transportation and its Highways, Harbors and Airports Divisions. Other sources include the U.S. Coast Guard, Federal Aviation Administration, Federal Highway Administration, Army Corps of Engineers, Honolulu Department of Transportation Services and Department of Data Systems, county finance departments, Hawaii Automobile Dealers' Association, and individual transportation companies. Data for the entire period of record through 1976 appear in Historical Statistics of Hawaii, Section 17. Similar statistics for other areas are reported in Statistical Abstract of the United States: 1989, Sections 21 and 22.

Table 493.-- HIGHWAY DISTANCES: 1989

Route	Statute miles	Route	Statute miles
HAWAII		MOLOKAI	
Hilo-Lyman Field	2.0	Kaunakakai-Sheraton Hotel	19.5
Hilo-Kalapana	26.1	Kaunakakai-Maunaloa	16.5
Hilo-Mauna Kea summit	39.3	Kaunakakai-Airport	7.0
Hilo-Mauna Loa summit	52.4	Kaunakakai-Halawa	27.6
Hilo-Volcano House	30.7	Airport-Sheraton Hotel	11.5
Hilo-Kailua, via Naalehu	125.2		
Hilo-Kailua, via Saddle Rd.	84.3	OAHU 1/	
Hilo-Kailua, via Hamakua	91.2		
Hilo-Waimea, via Saddle Rd.	57.9	Honolulu-Ala Moana Center	1.6
Hilo-Waimea, via Hamakua	55.3	Honolulu-UH, via King Street	3.2
Hilo-Upolu Pt., via Hamakua	83.7	Honolulu-Waikiki	3.2
Hilo-Kawaihae, via Hamakua	69.5	Honolulu-Waimanalo, via Koko Head	21.8
Waimea-Hawi	21.4	Honolulu-Waimanalo, via Nuuanu	13.3
Waimea-Kawaihae	11.5	Honolulu-Kailua, via Nuuanu	11.6
Kawaihae-Hawi	18.0	Honolulu-Kaneohe, via Kalihi	10.8
Kawaihae-Kailua	48.4	Honolulu-Kahuku, via Kahaluu	36.2
Kailua-Keahole Airport	6.8	Honolulu-Kahuku, via Wahiawa	46.2
Kailua-Keauhou	6.9	Honolulu-Kaena Pt., via Wahiawa	42.4
		Honolulu-Kaena Pt., via Waianae	44.3
MAUI		Honolulu-Wahiawa	20.5
		Honolulu-Pearl Harbor Shipyard	6.5
Wailuku-Kahului	2.3	Honolulu-Honolulu Airport	4.8
Wailuku-Kahului Airport	4.2	Waikiki-UH, via Kapahulu	3.2
Wailuku-Hana, via Keanae	53.7	Waikiki-Honolulu Airport	8.0
Wailuku-Hana, via Kaupo	59.8	Waimanalo-Kahuku	33.0
Wailuku-Haleakala summit	38.2	Circle island, via Makapuu	99.1
Wailuku-Makena	17.6	Circle island, via Nuuanu Pali	81.1
Wailuku-Lahaina, via Kahakuloa	38.0		
Wailuku-Lahaina, via Olowalu	20.9	KAUAI	
Kahului-Kihei	7.9		
Lahaina-Wailea	32.4	Lihue-Haena	38.0
Lahaina-Napili	8.9	Lihue-Wailua	5.9
Lahaina-Kaanapali	3.7	Lihue-Lihue Airport	2.0
		Lihue-Poipu	11.9
LANAI		Lihue-Mana	32.9
		Lihue-Kalalau Lookout	44.6
Lanai City-Lanai Airport	2.7	Poipu-Kalalau Lookout	36.8
Lanai City-Hulopoe	8.0	Poipu-Princeville	40.7

1/ Honolulu distances measured from King and Bishop Streets; Waikiki, from Kalakāua and Lewers.

Source: Hawaii State Department of Transportation, Highways Division, records.

Table 494.-- LENGTH OF STREETS AND HIGHWAYS, PAVED AND UNPAVED: 1923 TO 1988

[Excludes private thoroughfares and military roads not regularly open to public use]

Category	1923	1938	1958	1973	1988
Total mileage ...	1,479	2,040	2,967	3,666	4,092
Paved	565	1,367	2,393	3,172	3,881
Unpaved	914	673	575	494	211

Source: Robert C. Schmitt, Historical Statistics of Hawaii (University Press of Hawaii, 1977), p. 429; present report, table 495.

Table 495.-- LENGTH OF STREETS AND HIGHWAYS, PAVED AND UNPAVED, BY ISLANDS: DECEMBER 31, 1988

[Excludes private thoroughfares and military roads not regularly open to public use]

Island	Total mileage	Paved		Unpaved
		Freeways	Other	
State total	4,092.49	96.55	3,784.69	211.25
Hawaii	1,472.77	7.04	1,393.11	72.62
Maui	583.78	3.21	523.87	56.70
Lanai	45.83	-	31.83	14.00
Molokai	129.29	-	117.29	12.00
Oahu	1,469.07	86.30	1,349.33	33.44
Kauai	391.75	-	369.26	22.49
Niihau	-	-	-	-

Source: Hawaii State Department of Transportation, Highways Division, records.

Table 496.-- HIGHWAY BRIDGES, BY ISLANDS: DECEMBER 31, 1988

Island	Number of bridges	Longest bridge		Highest bridge	
		Location	Length (feet)	Location	Height (feet)
State	1,107	Airport Viaduct	14,890	Nanue	208
Hawaii	254	Hakalau	775	Nanue	208
Maui	155	Kalialinui	324	Uaoa	79
Lanai	-	None	...	None	...
Molokai	13	Manawainui	325	Manawainui	50
Oahu	607	Airport Viaduct	14,890	Kipapa	156
Kauai	78	Kalihiwai	798	Wahiawa, Koloa	90

Source: Hawaii State Department of Transportation, Highways Division, records.

Table 497.-- HIGHWAY TUNNEL LENGTHS: DECEMBER 31, 1988

Island and name of tunnel	Length (feet)
Oahu:	
Pali No. 1: Inbound (to Honolulu)	1,000
Outbound (from Honolulu)	1,080
Pali No. 2: Inbound	500
Outbound	497
Wilson: Inbound	2,775
Outbound	2,813
Middle Street	393
Structure No. 8, Waiawa Interchange	300
Maui:	
Olowalu	318
Kauai:	
Kipu-Mahaulepu (private road)	2,200

Source: Hawaii State Department of Transportation, Highways Division, records; McBryde Sugar Plantation, records.

Table 498.-- SIGNALIZED INTERSECTIONS AND METERED PARKING SPACES, BY ISLANDS: DECEMBER 31, 1985

Type of facility	State total	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai
Signalized intersections	580	38	18	-	-	516	8
Metered on-street parking spaces	3,630	816	-	-	-	2,814	-
Metered off-street parking spaces 1/	3,226	277	68	-	18	2,797	66

1/ Limited to spaces under State or county control. Excludes about 900 spaces on Oahu converted to contract operation.

Source: Compiled by Hawaii State Department of Planning and Economic Development from Hawaii State Department of Accounting and General Services, Hawaii State Department of Transportation, City and County of Honolulu Department of Transportation Services, Hawaii County Department of Public Works, Kauai County Department of Public Works, and Maui County Department of Public Works.

Table 499.-- VEHICLE DENSITIES: 1923 TO 1988

Measure	1923	1938	1958	1973	1988
Motor vehicles per --					
1,000 persons 1/	65.6	151.2	330.9	529.0	670.8
Mile of street or highway	13.3	30.4	68.2	130.0	199.8
Persons per 1/ --					
Motor vehicle	15.2	6.6	3.0	1.9	1.5
Mile of street or highway	202.5	201.0	206.2	245.9	297.8

1/ Based on resident population through 1938 and de facto population thereafter.

Source: Robert C. Schmitt, Historical Statistics of Hawaii (University Press of Hawaii, 1977), tables 1.4 and 17.2; present report, tables 3, 494, and 500.

Table 500.-- VEHICLE REGISTRATION, BY TYPE OF VEHICLE: 1978 TO 1988

[Taxable and non-taxable, including military
non-resident exempt vehicles]

Year	All vehicles registered	Motor vehicles			
		All motor vehicles	Passenger vehicles 1/	Ambulances, hearses, patrol wagons	Buses
1978	599,990	583,601	489,878	84	3,052
1979	626,841	610,570	510,353	91	3,267
1980	633,846	617,571	514,669	85	3,366
1981	667,019	649,350	541,932	88	3,577
1982	689,468	671,513	566,060	80	3,863
1983	(NA)	702,854	(NA)	(NA)	(NA)
1984	735,458	717,171	599,845	68	4,034
1985	767,892	749,034	625,823	66	4,189
1986	790,855	771,575	642,636	60	4,158
1987	818,430	798,317	661,674	54	4,198
1988	838,327	817,609	670,877	52	4,215

Year	Motor vehicles -- continued				Trailers and semi-trailers
	Trucks 1/	Truck tractors, tow trucks	Truck crane, misc.	Motorcycles, motor scooters 2/	
1978	78,447	1,809	560	9,771	16,389
1979	84,578	1,784	511	9,986	16,271
1980	87,542	1,725	488	9,696	16,275
1981	90,954	1,641	458	10,700	17,669
1982	88,410	1,395	388	11,317	17,955
1983	(NA)	(NA)	(NA)	(NA)	(NA)
1984	101,233	1,428	364	10,199	18,287
1985	106,673	1,334	342	10,607	18,858
1986	112,053	1,290	323	11,055	19,280
1987	119,338	1,220	318	11,515	20,113
1988	129,452	1,176	293	11,544	20,718

Footnotes and source on next page.

Table 500.-- VEHICLE REGISTRATION, BY TYPE OF VEHICLE: 1978 TO 1988 -- Con.

NA Not available.

1/ Beginning in 1979, vans and other trucks under 6,500 lb. in personal use were legally classified as passenger vehicles, but the data shown here have been adjusted to continue inclusion of such vehicles in the totals for trucks.

2/ Excluding mopeds (1.5 HP or less), which are legally classified as bicycles.

Source: City and County of Honolulu, Department of Data Systems, records; present report, table 502.

Table 501.-- MOTOR VEHICLES REGISTERED, BY COUNTIES: 1978 TO 1988

[Taxable and non-taxable, including military non-resident exempt vehicles. Includes passenger cars, buses, trucks, and motorcycles but excludes trailers and semi-trailers]

Year	State total	City and County of Honolulu	County of Hawaii	County of Kauai	County of Maui
1978	583,601	436,347	63,025	27,614	56,615
1979	610,570	452,449	67,718	29,492	60,911
1980	617,571	454,316	70,047	30,604	62,604
1981	649,350	476,995	75,812	32,932	63,611
1982	671,513	495,629	77,024	33,931	64,929
1983	702,854	515,002	80,090	35,365	72,397
1984	717,171	525,599	80,840	35,236	75,496
1985	749,034	544,976	85,806	37,659	80,593
1986	771,575	556,935	89,918	40,585	84,137
1987	798,317	571,738	93,095	43,925	89,559
1988	817,609	579,998	96,360	47,235	94,016

Source: City and County of Honolulu, Department of Data Systems, records; present report, table 502.

Table 502.-- VEHICLE REGISTRATION, BY TYPE OF VEHICLE, FOR COUNTIES: 1988 AND 1983

[Taxable and non-taxable, including military non-resident exempt vehicles]

Type of vehicle	State total	City and County of Honolulu	County of Hawaii	County of Kauai	County of Maui
1988					
All vehicles	838,327	591,594	100,915	49,430	96,388
Motor vehicles	817,609	579,998	96,360	47,235	94,016
Passenger vehicles 1/	670,877	477,362	78,467	38,128	76,920
Ambulances 2/	52	37	11	1	3
Buses	4,215	3,370	260	119	466
Trucks 1/	129,452	89,321	16,023	8,371	15,737
Truck tractors 3/	1,176	564	274	124	214
Truck cranes 4/	293	110	67	30	86
Motorcycles 5/	11,544	9,234	1,258	462	590
Trailers and semi-trailers	20,718	11,596	4,555	2,195	2,372
1983					
Motor vehicles	702,854	515,002	80,090	35,365	72,397
U-drive	30,442	18,580	2,891	1,478	7,493
All others	672,412	496,422	77,199	33,887	64,904

1/ Vans and other trucks under 6,500 lb. in personal use, legally classified as passenger vehicles, are included in the trucks category.

2/ Including hearses and patrol wagons.

3/ Including tow trucks.

4/ Including miscellaneous vehicles.

5/ Including motorscooters but excluding mopeds (1.5 HP or less), legally classified as bicycles.

Source: 1988 from City and County of Honolulu, Department of Data Systems, records; 1983 from Applied Analysis, Inc., Estimating Annual Vehicle-miles Traveled (VMT) in the State of Hawaii (August 1987), and records.

Table 503.-- AUTOMOBILES, TRUCKS, AND VANS AVAILABLE TO OCCUPIED HOUSING UNITS, BY COUNTIES: 1980

Number of vehicles available	The State	Hawaii	Honolulu	Kalawao	Kauai	Maui
Occupied units	294,052	29,237	230,214	71	12,020	22,510
None	30,509	2,463	25,628	8	788	1,622
1	115,357	9,193	95,735	18	3,209	7,202
2	94,699	10,775	71,456	25	4,440	8,003
3 or more	53,487	6,806	37,395	20	3,583	5,683

Source: U.S. Bureau of the Census, 1980 Census of Housing, Detailed Housing Characteristics, Hawaii, HC80-1-B13 (May 1983), tables 61 and 94.

Table 504.-- TAXABLE VEHICLES, BY TYPE AND EMPTY WEIGHT: DECEMBER 1988

Empty weight	Passenger vehicles	Buses	Trucks 1/	Truck tractors, tow trucks	Motorcycles	Trailer
All taxable vehicles	618,854	2,764	42,228	716	6,776	13,780
Under 2,000 lb.	41,875	-	19	-	6,770	10,395
2,000 to 2,999 lb.	337,963	36	9,064	9	2	521
3,000 to 3,999 lb.	194,874	68	12,501	12	1	179
4,000 to 4,999 lb.	40,483	718	9,722	12	2	187
5,000 to 5,999 lb.	2,955	895	2,564	13	0	192
6,000 to 9,999 lb.	454	440	3,883	104	1	959
10,000 lb. and over	250	607	4,475	566	-	1,347
Median weight (lb.)	2,792	5,626	3,962	14,175	<2,000	<2,000

1/ Vans and other trucks under 6,500 lb. in personal use are classified as passenger vehicles.

Source: Hawaii State Department of Transportation, Highways Division, Staff Services Office, Budget, Methods and Systems Staff; printouts from Honolulu Department of Data Systems. Medians calculated by Hawaii State Department of Business and Economic Development.

Table 505.-- TRUCK CHARACTERISTICS: 1972, 1977, AND 1982

[Percent]

Vehicular and operational characteristics	1972	1977	1982 1/
Major use: Personal transportation	37.6	50.0	54.3
Body type: Pickup, panel, multistop, or walk-in .	73.5	86.4	89.6
Vehicle size: Light	71.6	89.0	92.9
Annual miles: Less than 10,000	59.8	54.1	59.7
Year model: Over 4 years old	59.3	68.1	75.8
Vehicle acquisition: Purchased new	55.9	54.6	47.3
Fleet size: 1 truck	53.4	64.0	72.3
Truck type: Single-unit, 2 axles	91.2	95.7	96.6
Range of operation: Local	84.6	87.3	78.2
Fuel type: Diesel and LPG	6.2	4.6	3.7

1/ There were 120,000 trucks in Hawaii in 1982, which traveled 1,071,700,000 truck miles, or 8,900 per truck.

Source: U.S. Bureau of the Census, 1982 Census of Transportation, Truck Inventory and Use Survey, Hawaii, TC82-T-12 (June 1985), tables 1 and 2.

Table 506.-- NEW PASSENGER CARS AND MOTOR TRUCKS REGISTERED: 1983 TO 1988

Year	Total	Passenger cars	Motor trucks
1983	52,927	42,772	10,155
1984	63,625	48,791	14,834
1985	67,875	51,330	16,545
1986	68,060	49,680	18,380
1987	73,138	51,446	21,692
1988	78,454	56,278	22,176

Source: R.L. Polk and Co., cited in Motor Vehicle Manufacturers Association of the United States, Inc., MVMA Motor Vehicle Facts and Figures (annual).

Table 507.-- NEW PASSENGER CAR AND TRUCK REGISTRATIONS, BY COUNTIES: 1985 TO 1988

Year	State total	Honolulu	Maui	Hawaii	Kauai
1985	68,676	50,058	8,095	7,660	2,863
1986	68,379	48,497	8,535	7,896	3,451
1987	71,987	49,028	10,865	7,436	4,658
1988	74,962	49,401	11,413	8,410	5,738

Source: Hawaii Automobile Dealers' Association, 1988 HADA Yearbook, p. 10, and 1989 HADA Yearbook, p. 8.

Table 508.-- NEW PASSENGER CAR AND TRUCK REGISTRATIONS, BY MAKE: 1987 AND 1988

Make	Total units, 1988	Passenger cars		Trucks	
		1987	1988	1987	1988
All makes	74,962	60,232	61,034	11,755	13,928
Ford	12,119	6,732	8,526	2,438	3,593
Nissan	10,405	8,063	9,080	1,907	1,325
Toyota	9,756	8,844	7,940	1,673	1,816
Chrysler/Dodge/Plymouth	7,501	5,133	5,793	1,170	1,708
Chevrolet	6,643	6,322	4,829	1,368	1,814
Honda	6,104	6,043	6,100	-	4
Mazda	2,979	2,372	2,017	1,368	962
Pontiac	2,072	1,601	2,068	-	4
Mercury	1,760	661	1,760	3	-
Buick	1,727	1,535	1,725	-	2
All others	13,896	12,926	11,196	1,828	2,700

Source: Hawaii Automobile Dealers Association, 1989 HADA Yearbook, p. 6.

Table 509.-- NEW PASSENGER CAR AND TRUCK REGISTRATIONS, BY PLACE OF MANUFACTURE: 1987 AND 1988

[Percent distributions]

Year	Total	Domestics 1/	Imports		
			Total	Japanese 1/	Other
1987	100.0	46.4	53.6	49.6	4.1
1988	100.0	51.7	48.3	44.2	4.1

1/ Japanese cars sold in the U.S. with U.S. nameplates are classified as domestic. Cars assembled in the U.S. with Japanese nameplates are classified as imports.

Source: Hawaii Automobile Dealers' Association, 1989 HADA Yearbook, p. 6, as corrected.

Table 510.-- HAWAII DRIVERS LICENSES IN FORCE, BY COUNTIES: 1983 TO 1988

[As of December 31]

Year	State total	City and County of Honolulu	County of Hawaii	County of Kauai	County of Maui
1983	574,533	428,897	64,560	29,169	51,907
1984	582,218	434,053	65,778	28,801	53,586
1985	593,952	441,278	68,177	29,188	55,309
1986	612,101	453,220	70,493	30,374	58,014
1987	628,027	463,522	72,142	31,831	60,532
1988	634,880	465,331	74,545	33,007	61,997

Source: Tabulations by City and County of Honolulu, Department of Data Systems, provided by Hawaii State Department of Transportation, Motor Vehicle Safety Office.

Table 511.-- HAWAII DRIVERS LICENSES IN FORCE, BY AGE AND SEX: DECEMBER 31, 1988

Age	Both sexes	Male	Female
Total	634,880	344,326	290,554
15 to 19 years	37,573	21,345	16,228
20 to 24 years	60,985	32,649	28,336
25 to 34 years	162,653	84,875	77,778
35 to 44 years	149,360	78,242	71,118
45 to 54 years	87,274	46,842	40,432
55 to 64 years	73,991	40,146	33,845
65 to 74 years	47,681	29,255	18,426
75 to 84 years	14,330	10,145	4,185
85 years and over	1,033	827	206
Median age (years)	38.8	39.3	38.2

Source: Tabulation by City and County of Honolulu, Department of Data Systems, provided by Hawaii State Department of Transportation, Motor Vehicle Safety Office.

Table 512.-- TOTAL 24-HOUR TRAFFIC VOLUMES AT SELECTED OAHU SURVEY SITES: 1986 TO 1988

Site	1986	1987	1988
Pali Highway at tunnels	49,242	50,611	50,453
Likelike Highway at tunnels	47,452	48,386	48,358
H-1 Freeway at Manoa-Palolo Drainage Canal 1/	122,603	(NA)	127,367
H-1 Freeway at Kapālama Drainage Canal Bridge	193,962	(NA)	191,286
Nimitz Highway at Kapalama Drainage Canal Bridge	63,626	63,040	69,040
Kalanianaole Highway east of Ainakoa Ave.	75,852	77,413	77,928

NA Not available.

1/ Includes Kapiolani on- and off-ramps.

Source: Hawaii State Department of Transportation, Highways Division, Planning Branch, records.

Table 513.-- MOTOR VEHICLE FUEL CONSUMPTION AND VEHICLE MILES: 1978 TO 1988

Year and county	Highway fuel consumption 1/		Vehicle miles of travel	
	Total (1,000 gallons)	Gallons per vehicle 2/	Total (millions)	Per vehicle 2/
1978	338,440	583	4,738.2	8,164
1979	339,989	560	4,759.9	7,834
1980	330,734	536	5,570.0	9,019
1981	319,588	492	5,855.7	9,018
1982	323,827	482	6,048.3	9,007
1983	327,769	(-NA)	(NA)	(NA)
1984	339,491	473	6,486.3	9,044
1985	345,672	461	6,761.5	9,027
1986	357,716	464	6,970.7	9,034
1987	367,984	461	7,217.2	9,041
1988	378,988	464	7,400.8	9,052
COUNTIES: 1988				
Honolulu	260,670	452	5,096.3	8,838
Hawaii	50,972	521	955.7	9,774
Kauai	23,733	487	503.1	10,328
Maui	43,613	462	845.7	8,949

NA Not available.

1/ Includes gasoline, gasohol, diesel oil, and butane gas. Gasohol was no longer used in motor vehicles after June 1982.

2/ Based on motor vehicle total by county of inspection; includes both taxable and nontaxable vehicles, and all military nonresident exempt vehicles. Data include passenger cars, buses, trucks, and motorcycles but exclude trailers and semi-trailers.

Source: Hawaii State Department of Transportation, Highways Division, Planning Branch, records.

Table 514.-- COMMUTING: 1980

Commuting characteristics	State total	Oahu	Other islands
MEANS OF TRANSPORTATION TO WORK			
Workers 16 years and over	457,717	369,523	88,194
Private vehicle	359,207	282,479	76,728
Drive alone: Car	225,767	179,823	45,944
Truck or van	27,401	15,904	11,497
Carpool: Car	93,203	78,997	14,206
Truck or van	12,836	7,755	5,081
Public transportation	38,100	37,042	1,058
Bus or streetcar	37,362	36,447	915
Subwäy, elevated train, or railroad	38	38	-
Taxicab	700	557	143
Bicycle	5,021	4,679	342
Motorcycle	2,979	2,740	239
Walked only	37,112	31,069	6,043
Other means	6,445	5,134	1,311
Worked at home	8,853	6,380	2,473
PRIVATE VEHICLE OCCUPANCY			
Workers 16 and over using private vehicles	359,207	282,479	76,728
Drive alone	253,168	195,727	57,441
In 2-person carpool	72,188	59,311	12,877
In 3-person carpool	19,417	16,642	2,775
In 4-person carpool	7,828	6,373	1,455
In 5-or-more-person carpool	6,606	4,426	2,180
Persons per private vehicle	1.20	1.21	1.17
TRAVEL TIME TO WORK			
Workers 16 and over who did not work at home	448,492	362,086	86,406
Less than 10 minutes	76,444	51,687	24,757
10 to 19 minutes	145,010	113,454	31,556
20 to 29 minutes	89,345	76,166	13,179
30 to 44 minutes	87,941	77,414	10,527
45 or more minutes	49,752	43,365	6,387
Mean minutes	21.5	22.6	17.2

Source: U.S. Bureau of the Census, 1980 Census of Population, General Social and Economic Characteristics, Hawaii, PC80-1-C13 (June 1983), table 65.

Table 515.-- MAJOR TRAFFIC ACCIDENTS, TRAFFIC INJURIES, AND TRAFFIC DEATHS, 1977 TO 1987, AND BY COUNTIES, 1987

Year	Major traffic accidents 1/		Persons injured or killed	
	Total	Fatal	Injured only	Killed
1977	16,188	139	12,245	154
1978	18,545	175	13,327	195
1979	19,158	183	13,963	205
1980	18,301	165	13,026	185
1981	16,582	136	11,999	150
1982	16,407	143	11,865	161
1983	16,372	131	11,852	139
1984	17,657	127	12,390	136
1985	19,577	118	12,613	126
1986	20,852	108	10,941	117
1987	23,618	126	11,987	138
COUNTIES: 1987				
Honolulu	18,700	72	8,582	75
Hawaii	2,530	29	1,743	36
Kauai	882	10	530	11
Maui	1,506	15	1,132	16

1/ Traffic accidents with damage of $300 or more or causing injury or death.

Source: Hawaii State Department of Transportation, Highways Division, Major Traffic Accidents, State of Hawaii (annual) and records.

Table 516.-- HIGHWAY SPEEDS, BY TYPE OF HIGHWAY: 1983 TO 1988

[Average speeds, in miles per hour. Years ended September 30]

Year	State-wide	Urban inter-state	Rural		
			Inter-state	Other arter-ials	Major collec-tors
1983	54.0	56.7	56.5	51.6	51.8
1984	54.7	56.8	56.8	52.4	53.1
1985	54.8	56.9	58.0	52.3	53.0
1986	55.1	58.4	(NA)	51.4	52.6
1987	55.0	58.4	(NA)	51.3	52.1
1988	1/ 56.2	59.5	(NA)	52.0	52.3

NA Not available.

1/ The corresponding U.S. average was 56.3. Hawaii ranked 29th among the 48 States reporting average speeds.

Source: U.S. Department of Transportation, Federal Highway Administration, Highway Statistics (annual).

Table 517.-- MOTOR CARRIER CHARACTERISTICS, BY COUNTIES: JULY 1989

County	Passenger carriers 1/			Property carriers 2/	
	Number of carriers	Number of vehicles	Seating capacity	Number of carriers	Number of vehicles
State total	997	4,979	128,776	2,741	16,636
Hawaii	80	550	20,813	523	2,954
Maui	145	849	17,352	380	1,953
Honolulu	711	3,195	79,288	1,652	10,685
Kauai	61	385	11,323	186	1,044

1/ Includes mostly tour bus operators; excludes public transit (such as MTL, Inc.), school buses, taxicabs, and rental car companies.

2/ Includes truckers, moving companies, etc.

Source: Compiled by Hawaii State Department of Transportation, Motor Vehicle Safety Office, from Hawaii State Department of Commerce and Consumer Affairs, Public Utilities Commission.

Table 518.-- REGISTERED TAXICABS AND BICYCLES, BY ISLANDS: 1987 AND 1988

[As of December 31]

Island	Taxicabs		Bicycles and mopeds	
	1987 1/	1988	1987	1988
State total	1,716	2/ 1,765	111,542	113,311
Hawaii	93	95	3,675	3,780
Maui	123	123	2,739	2,472
Lanai	-	1	223	180
Molokai	-	-	238	258
Oahu	1,473	1,546	100,753	103,529
Kauai	27	(NA)	3,914	3,092

NA Not available.

1/ The figure for Kauai is incomplete.

2/ Excludes Kauai.

Source: Compiled by the Hawaii State Department of Business and Economic Development from the County Departments of Finance.

Table 519.-- STEAM RAILROAD MILEAGE AND PASSENGERS: 1980 TO 1988

[Data are for the Lahaina, Kaanapali and Pacific Rail Road, the only passenger railroad in the State]

Calendar year	Miles of track	Passengers	Calendar year	Miles of track	Passengers
1980	6	111,699	1985	6	199,759
1981	6	128,178	1986	6	215,735
1982	6	155,059	1987	6	244,555
1983	6	171,892	1988	6	285,139
1984	6	197,876			

Source: Lahaina, Kaanapali and Pacific Rail Road, records.

Table 520.-- BUS SERVICE, FOR OAHU: 1970 TO 1988

[Service provided by Honolulu Rapid Transit Co., Ltd., through December 31, 1970 and by City and County of Honolulu beginning March 1, 1971]

Year	Number of buses, Dec. 31	Bus mileage 1/	Total passengers 2/	Revenues 3/ (dollars)
1970 4/	141	4,611,357	30,434,906	4,970,000
1971 5/	108	2,986,724	19,413,259	1,246,351
1972	143	4,964,044	31,031,764	4,445,817
1973	315	7,973,393	36,741,009	5,254,908
1974	333	11,670,774	50,519,626	6,807,147
1975	350	13,328,501	58,295,732	7,990,505
1976	350	15,547,127	64,585,334	9,007,134
1977	350	16,242,537	66,311,882	9,629,349
1978	350	15,991,798	67,746,396	9,686,876
1979	350	15,915,000	68,765,000	9,931,000
1980	400	16,579,392	71,601,744	17,388,760
1981	400	16,748,338	73,546,802	17,991,735
1982	400	16,767,816	74,109,528	18,269,144
1983	395	16,654,568	75,051,618	18,157,876
1984	440	16,774,564	76,260,187	18,819,782
1985	440	16,938,692	74,816,485	18,952,566
1986	459	17,065,875	74,410,104	18,802,330
1987	460	16,733,510	74,066,369	18,659,459
1988	470	17,124,317	74,467,760	18,824,046

1/ All categories of service through 1978 and revenue vehicle miles (estimated) thereafter. Calendar year data.

2/ All categories of service through 1978 and revenue passengers (including senior citizens and handicapped) as estimated thereafter. Calendar year data.

3/ Calendar year 1970; 4-month period ended June 30, 1971; fiscal years ended June 30, 1972 to 1979; calendar years, 1980 forward. The fiscal year figure for 1980 was $14,817,639.

4/ Passenger total excludes 2,277,502 zone fares.

5/ Bus service by HRT was terminated by a strike that began January 1. The City and County of Honolulu commenced service March 1.

Source: HRT, Ltd., data provided by Hawaii State Department of Regulatory Agencies, Public Utilities Division; MTL, Inc., data provided by the City and County of Honolulu, Department of Transportation Services.

Table 521.-- BUS PASSENGERS, BY FARE CATEGORY, FOR OAHU: 1986 TO 1988

[Calendar year data for City and County of Honolulu bus system]

Fare category	1986	1987	1988
All passengers	74,410,104	74,066,369	74,467,760
Adults, full fare	42,296,391	42,489,644	43,182,518
Students	12,185,244	11,820,592	11,533,291
School subsidy	368,135	352,692	311,027
Stadium express	10,861	10,152	10,309
Senior citizens and handicapped	14,151,242	14,103,035	14,197,265
Chartered service	17,261	10,674	4,967
Free transfers	5,380,970	5,279,580	5,228,383

Source: MTL, Inc., data provided by the City and County of Honolulu, Department of Transportation Services.

Table 522.-- BUS FARE CHRONOLOGY, FOR OAHU: 1971 TO 1989

[In dollars]

Effective date	Cash fares 1/		Monthly passes	
	Adult	School	Adult	School
March 1, 1971	.25	.15	...	...
March 2, 1971	.25	.10	...	...
June 9, 1972 2/	.25, .50	.10, .25	...	...
March 15, 1974	.25	.10	...	...
November 1, 1979	.50	.25	15.00	7.50
June 18, 1984 3/	.60	.25	15.00	7.50

1/ In addition, there have been special fares for children, handicapped persons, senior citizens, service to and from Pearl Harbor, and the Stadium Express during many of these years.

2/ Zone fares initiated.

3/ Current fares as of September 1, 1989.

Source: City and County of Honolulu, Department of Transportation Services, records.

Table 523.-- AUTOMOTIVE RENTAL AND LEASING WITHOUT DRIVERS (SIC 751) ESTABLISHMENTS WITH PAYROLL, BY COUNTIES: 1987

Subject	State total 1/		Counties (SIC 751)			
	SIC 751	SIC 7514	Honolulu	Hawaii	Kauai	Maui
No. of establishments ..	101	77	48	19	11	23
Receipts (mil. dol.) ...	243.3	231.1	134.5	23.5	23.9	61.4

1/ Most of the receipts for SIC 751 were reported in SIC 7514, passenger car rental. Other subgroups under SIC 751 were SIC 7513, truck rental and leasing, without drivers; SIC 7515, passenger car leasing; and SIC 7519, utility trailer and recreational vehicle rental.

Source: U.S. Bureau of the Census, 1987 Census of Service Industries, Hawaii, SC87-A-12 (July 1989), tables 1a, 4a, 7, and 8a.

Table 524.-- AIRPORTS AND HELIPORTS, BY CONTROL, BY ISLANDS: DECEMBER 31, 1988

Island	Airports 1/				Heliports 2/	
	State		Military	Semi-private	State: commercial	Semi-private
	Commercial	General aviation				
State total	7	7	6	2	1	11
Hawaii	2	2	1	-	-	6
Maui	1	1	-	1	-	1
Kahoolawe	-	-	-	-	-	-
Lanai	1	-	-	-	-	-
Molokai	1	1	-	-	-	-
Oahu	1	2	3	-	1	1
Kauai	1	1	1	1	-	3
Niihau	-	-	-	-	-	-
Kure Atoll	-	-	1	-	-	-

1/ Excludes private airports (not available).

2/ Excludes military and private heliports (not available).

Source: Hawaii State Department of Transportation, Airports Division, records.

Table 525.-- AIRCRAFT OPERATIONS FOR SPECIFIED AIRPORTS: 1978 TO 1988

[An aircraft operation is an aircraft arrival or departure]

Year	Honolulu International Airport	General Lyman Field, Hilo	Keahole Airport	Kahalui Airport	Lihue Airport	Molokai Airport
1978	379,106	52,677	91,033	125,291	74,583	32,801
1979	412,739	51,703	92,235	127,477	71,033	72,024
1980	375,408	49,969	66,944	111,573	62,829	67,761
1981	339,359	53,274	57,488	102,760	59,404	61,876
1982	308,728	47,964	51,889	112,428	65,305	69,142
1983	333,038	54,470	66,581	124,288	71,739	54,882
1984	343,818	62,543	83,320	142,311	100,992	53,513
1985	357,511	61,225	93,879	157,231	131,755	56,048
1986	368,049	61,514	81,467	174,560	143,905	52,268
1987	385,275	80,123	67,497	165,920	134,495	50,829
1988	377,919	85,267	56,584	173,053	122,268	50,456

Source follows next table.

Table 526.-- AIRCRAFT OPERATIONS, BY TYPE OF AIRCRAFT, AT MAJOR STATE OWNED AIRPORTS: 1988

[An FAA directive dated December 8, 1987 requires all aircraft with 60 seats or less to be designated as air taxis, even if such aircraft are operated by a designated air carrier. This reclassification especially affects the data for Molokai Airport]

Airport	All movements	Air carrier	Air taxi	General aviation	Military
Honolulu International ..	377,919	185,282	60,628	91,971	40,038
Gen. Lyman	85,267	16,882	17,905	36,709	13,771
Kahului	173,053	61,990	60,385	43,792	6,886
Lihue	122,268	34,169	71,133	8,468	8,498
Keahole	56,584	20,733	17,509	11,710	6,632
Molokai	50,456	7	39,962	8,473	2,014

Source: Hawaii State Department of Transportation, Airports Division, records.

Table 527.-- RANK OF HONOLULU INTERNATIONAL AIRPORT IN OPERATIONS AND ENPLANED PASSENGERS: 1986 AND 1987

Subject	Rank 1/		Number	
	1986	1987	1986	1987
Total aircraft operations	21	16	367,938	385,260
Air carrier operations	19	17	191,890	216,044
Total enplaned passengers 2/ ...	17	17	7,352,027	7,773,253

1/ Among all FAA-operated airport traffic control towers in the United States.

2/ For large scheduled certificated air carriers, both scheduled and unscheduled operations.

Source: FAA Statistical Handbook of Aviation for 1986 (pp. 30 and 97) and 1987 (pp. 31 and 97).

Table 528.-- TRANSPACIFIC AND INTERISLAND AIR CARRIERS SERVING HAWAII: 1986 TO 1989

[As of June 30. Includes both scheduled and nonscheduled services]

Service	1986 1/	1987 2/	1988 2/	1989 2/
All air carriers 3/	32	33	34	44
Transpacific	30	27	27	32
Domestic	18	14	12	17
Foreign	12	13	15	15
Interisland	4	8	9	17
Passenger carriers	3	8	7	13
Cargo and mail only	1	-	2	4

1/ Excludes commuter lines and other air taxi service.

2/ Includes commuter lines and other air taxi service.

3/ Unduplicated totals. In 1989, five air carriers provided both transpacific and interisland service.

Source: Hawaii State Department of Transportation, Airports Division, records.

Table 529.-- CIVIL FLYING: 1984 TO 1987

Item	1984	1985	1986	1987
Aircraft facilities, Dec. 31	51	50	51	54
Airports	37	36	34	35
Heliports	14	14	17	19
Public aircraft facilities, Dec. 31 ...	14	16	18	18
Paved and lighted facilities, Dec. 31 .	12	12	12	12
Large aircraft in operation, Dec.	38	49	54	57
Aloha Airlines, Inc.	9	8	11	10
Hawaiian Airlines, Inc.	18	21	24	29
Mid Pacific Airlines, Inc.	11	20	19	18
General aviation: 1/				
Active civil aircraft, Dec.	463	348	366	486
Standard error	143	109	118	140
Hours flown (1,000)	206	137	182	163
Standard error (1,000)	95	56	81	75
Active personnel, Dec. 31:				
Pilots, except instructors	3,187	3,256	3,327	3,373
Flight instructors	303	267	246	271
Nonpilot airmen 2/	3,191	2,498	2,609	2,778

1/ Aircraft based in Hawaii. Data based on samples with specified standard errors.

2/ Mechanics, parachute riggers, ground instructors, dispatchers, control tower operators, flight navigators, and flight engineers.

Source: U.S. Department of Transportation, Federal Aviation Administration, FAA Statistical Handbook of Aviation (annual).

Table 530.-- OVERSEAS AND INTERISLAND AIR PASSENGER MOVEMENTS: 1978 TO 1988

[Calendar years. Data include both revenue and non-revenue passengers]

Year	Overseas passengers 1/			Inter-island passenger arrivals
	Arrivals	Departures	Through	
1978 ..	4,131,466	4,054,544	854,276	7,341,815
1979 ..	4,245,032	4,148,645	971,452	7,578,877
1980 ..	4,270,633	4,174,739	1,118,987	6,737,894
1981 ..	4,290,752	4,292,159	1,032,264	6,724,113
1982 ..	4,669,747	4,641,716	882,832	7,327,447
1983 ..	4,760,459	4,714,689	777,490	7,037,687
1984 ..	5,263,213	5,261,373	727,947	7,632,239
1985 ..	5,317,862	5,293,528	858,501	7,878,598
1986 ..	6,041,078	6,083,508	841,241	8,340,048
1987 ..	6,265,211	6,317,747	1,109,850	8,802,594
1988 ..	6,653,346	6,713,621	1,421,707	8,964,878

1/ Includes West Coast, Canada, Europe, and the Central and South Pacific.

Source: Hawaii State Department of Transportation, Airports Division, records.

Table 531.-- PASSENGERS, CARGO, AND MAIL, OVERSEAS AND INTERISLAND, BY AIRPORT: 1988

Airport	Passengers 1/		Cargo (tons)		Mail (tons)	
	Enplaned	Deplaned	Enplaned	Deplaned	Enplaned	Deplaned
OVERSEAS						
Total	6,713,621	6,653,346	142,391	123,587	13,882	15,514
Honolulu	6,125,170	6,018,891	136,648	113,150	13,831	15,510
General Lyman ...	-	-	-	-	-	-
Kahului	473,528	498,793	2,394	7,624	51	4
Keahole	74,772	84,978	3,229	2,545	-	-
Lihue	40,151	50,684	120	267	-	-
INTERISLAND						
Total	8,964,928	8,964,928	65,102	65,102	9,424	9,424
Honolulu	3,993,250	4,018,523	41,772	21,351	5,444	3,804
General Lyman ...	593,138	613,412	15,382	9,721	1,074	1,341
Waimea-Kohala ...	9,311	7,803	-	-	-	-
Keahole	845,864	817,935	2,801	6,337	737	1,126
Kahului	1,714,848	1,732,064	3,335	16,826	1,358	2,068
Hana	11,377	11,630	-	-	-	-
Molokai	165,038	166,965	319	380	57	7
Kalaupapa	7,131	6,547	2	12	-	-
Lanai	48,085	47,411	15	106	8	1
Lihue	1,318,869	1,310,823	1,404	10,059	683	1,075
Other airports 2/	258,017	231,815	72	310	63	2

1/ Revenue and non-revenue, excluding Military Airlift Command (MAC). Also excludes overseas passengers in transit (1,421,707, all through Honolulu International Airport).

2/ Princeville and Waikoloa.

Source: Hawaii State Department of Transportation, Airports Division, records.

Table 532.-- AIR CARGO AND AIRMAIL: 1978 TO 1988

[In thousands of pounds]

Calendar year	Overseas air cargo		Overseas airmail		Interisland	
	Out-going	In-coming	Out-going	In-coming	Air cargo: incoming	Airmail: incoming
1978	139,004	135,347	37,061		82,872	15,199
1979	121,702	121,205	17,497	17,577	118,555	15,364
1980	130,586	114,673	21,105	19,581	138,008	13,576
1981	151,513	101,301	22,388	19,887	132,559	14,131
1982	155,278	105,388	21,280	25,006	114,038	15,014
1983	174,582	136,354	23,620	28,288	109,828	16,024
1984	196,215	153,654	23,356	29,497	111,472	16,282
1985	180,470	150,295	21,657	22,119	101,700	16,072
1986	200,255	184,894	22,842	23,725	114,657	16,913
1987	234,098	212,717	23,560	29,004	122,481	17,561
1988	284,783	247,174	27,764	31,028	130,203	18,847

Source: Hawaii State Department of Transportation, Airports Division, records.

Table 533.-- HELICOPTER TOURS: 1977 TO 1989

Subject	1977	1982	1985	1987	1988	1989
Companies	9	14	25	36	36	36
Aircraft	15	26	48	71	74	74

Source: Hawaii Helicopter Operators Association, records.

Table 534.-- FLIGHTS SCHEDULED TO DEPART HONOLULU INTERNATIONAL AIRPORT, BY DESTINATION: APRIL 23-29, 1989

[Data for the 539 transpacific flights scheduled to depart from Honolulu during a one-week period]

Destination	Flights during week		
	Total	Final destination	Intermediate point
Tokyo	75	53	22
Osaka	21	21	-
Hong Kong	14	7	7
Manila	12	12	-
Singapore	10	10	-
Sydney	41	12	29
Auckland	19	5	14
Melbourne	21	21	-
Guam	17	17	-
Seattle	21	-	21
Portland	21	21	-
San Francisco	83	55	28
Los Angeles	143	92	51
Denver	16	14	2
Dallas/Fort Worth	28	-	28
Chicago	56	49	7
Atlanta	21	21	-
New York	42	42	-
All others	117	87	30

Source: Greeters of Hawaii, Jiffisked ... April 2-30, 1989. Courtesy of Greeters of Hawaii, P. O. Box 29638, Honolulu, HI 96820.

Table 535.-- AIRLINE PASSENGER ORIGINS AND DESTINATIONS: 1987

[Year ended December 31, 1987. Top city pairs originating or terminating passengers and revenue passenger-miles, ranked by passengers. Data limited to domestic operations in scheduled service. Figures are combined totals in both directions]

City pair in both directions 1/ (in order of passenger rank)	Inter-city distance (miles)	Passengers		Passenger-miles	
		U.S. rank	Number (1,000)	U.S. rank	Number (1,000)
Honolulu-Los Angeles	2,568	20	1,040	3	2,674,043
Honolulu-Kahului	100	30	778	660	78,011
Honolulu-San Francisco	2,399	52	617	12	1,492,656
Honolulu-Lihue	102	63	564	824	58,589
Honolulu-Kona	169	109	380	742	65,371
Honolulu-New York	4,971	168	274	16	1,372,910
Honolulu-Seattle	2,678	259	199	54	550,478
Honolulu-Chicago	4,251	299	176	36	754,214
Honolulu-Las Vegas	2,762	407	128	102	357,893
Honolulu-Washington	4,828	590	87	80	427,247
Honolulu-Boston	5,095	696	74	96	383,467

1/ Includes all cities in Hawaii included in top U.S. city pairs, as ranked either by number of passengers or number of passenger-miles.

Source: U.S. Department of Transportation, Research and Special Programs Administration, records.

Table 536.-- REGULAR ONE-WAY FARES AND SCHEDULED FLIGHT TIMES FOR FLIGHTS BY UNITED AIRLINES BETWEEN SAN FRANCISCO AND HONOLULU: 1980 TO 1989

[Updated to October 11, 1989]

Effective date of change in fare	Regular one-way fares, including taxes (dollars)			Flight time 1/ (hours, min.)
	First class	Coach, weekend	Coach weekday	
1980: Jan. 1	302.12	209.08	199.08	5:02
June 1	319.13	221.09	211.08	5:02
Aug. 1	351.14	243.10	233.09	5:02
Oct. 1	365.11	252.08	252.08	5:02
1981: Jan. 20 ...	384.12	265.08	265.08	5:02
Mar. 31 ...	415.12	286.09	286.09	5:02
June 17 ...	425.13	296.09	296.09	5:02
Oct. 1	392.12	280.08	280.08	5:00
1982: Mar. 1	412.12	219.07	219.07	5:00
Apr. 1	412.12	310.09	310.09	5:00
June 1	412.12	328.10	328.10	5:00
Sept. 1 ...	415.16	331.13	331.13	5:00
1983: June 15 ...	415.16	353.14	353.14	5:00
1984: Sept.	415.00	353.14	353.14	5:00
Oct.	415.00	353.00	353.00	5:02
Dec.	454.00	364.00	364.00	5:02
1986: Nov. 14 ...	576.00	459.00	459.00	5:03
1987: Apr. 11 ...	588.00	469.00	469.00	5:00
June 5	598.00	479.00	479.00	5:00
June 30 ...	605.00	486.00	486.00	5:00
Aug. 7	613.00	494.00	494.00	5:00
1989: Feb. 4	718.00	514.00	514.00	5:06
June 3	733.00	524.00	524.00	5:05

1/ Average scheduled flight time eastbound and westbound, by B-747 or DC-10 aircraft. Flight time varies seasonally.

Source: United Airlines, records.

Table 537.-- AIR FARES BETWEEN HONOLULU AND LOS ANGELES, SAN FRANCISCO, AND SEATTLE, FOR MAJOR AIRLINES: AUGUST 3, 1989

[Dollars. Includes taxes]

Carrier and fare category	Los Angeles	San Francisco	Seattle
United Airlines, one-way:			
First class	775	733	809
Coach (unrestricted)	457	433	476
United Airlines, round-trip:			
First class	1,550	1,466	1,618
Coach (unrestricted)	914	866	952
Major carriers, lowest round-trip:			
United Airlines 1/	398	398	438
Lowest carrier	298	378	438
Highest carrier	398	398	438
Average	380	396	438

1/ Coach fare, restricted. Requires 14-day advance notice, departure only on Tuesday, Wednesday, or Thursday, and 30-day maximum stay. No one-way fare available.

Source: United Airlines, records; Sunday Star-Bulletin & Advertiser, August 6, 1989, p. F-6.

Table 538.-- REGULAR ONE-WAY FARES AND SCHEDULED FLIGHT TIMES FOR SPECIFIED INTERISLAND FLIGHTS BY HAWAIIAN AIRLINES, BY TYPE OF AIRCRAFT: 1982 TO 1989

[Updated to October 2, 1989]

Effective date of change in fare	Honolulu-Lihue		Honolulu-Kahului		Honolulu-Hilo	
	DC-9 1/	DASH-7	DC-9 1/	DASH-7	DC-9 1/	DASH-7
FARES 2/						
1982: May 1	46.00	46.00	46.00	46.00	56.00	56.00
June 1	48.00	48.00	48.00	48.00	58.00	58.00
Aug. 1	53.00	53.00	53.00	53.00	63.00	63.00
Sept. 1	54.50	54.50	54.50	54.50	65.00	65.00
1983: Feb. 1	45.00	45.00	45.00	45.00	45.00	45.00
July 1	49.95	49.95	49.95	49.95	49.95	49.95
Oct. 30	49.95	29.95	49.95	29.95	49.95	29.95
Dec. 16	49.95	41.95	49.95	41.95	49.95	41.95
Dec. 22	49.95	33.95	49.95	33.95	49.95	33.95
1984: Jan. 20	49.95	41.95	49.95	41.95	49.95	41.95
May 28	49.95	43.95	49.95	43.95	49.95	43.95
Nov. 15	52.95	46.95	52.95	46.95	52.95	46.95
Dec. 16	52.95	37.95	52.95	37.95	52.95	37.95
1985: Jan. 7	52.95	34.95	52.95	34.95	52.95	34.95
Mar. 11	52.95	36.95	52.95	36.95	52.95	36.95
Apr. 28	52.95	38.95	52.95	38.95	52.95	38.95
July 1	44.95	37.95	44.95	37.95	44.95	37.95
Aug. 1	46.95	38.95	46.95	38.95	46.95	38.95
1987: Mar. 1	48.95	46.95	48.95	46.95	48.95	46.95
1988: Oct. 31	41.95	39.90	41.95	39.90	41.95	39.90
1989: Feb. 1	41.95	41.95	41.95	41.95	41.95	41.95
May 8	44.95	44.95	44.95	44.95	44.95	44.95
Aug. 1	44.95	44.95	44.95	44.95	44.95	44.95
FLIGHT TIMES 3/						
1982-1984	26	34	27	34	40	60
1985-1987	25	33	26	33	40	58
1988-1989	27	44	27	41	41	4/ 155

1/ DC-9-50 and DC-9-80 from May 1981 through 1985; DC-9-15, DC-9-50, and DC-9-80 thereafter.

2/ Total regular one-way fare, including taxes and other charges, in dollars.

3/ Average non-stop scheduled flight time eastbound and westbound, in minutes.

4/ Includes three stopovers (Molokai, Kapulua, and Kahului).

Source: Hawaiian Airlines, records.

Table 539.-- STATE COMMERCIAL HARBORS: 1989

Island and harbor	Harbor entrance depth (feet)	Harbor basin			Piers (linear feet)	Storage area (1,000 square feet)	
		Depth (feet)	Length (feet)	Width (feet)		Shedded	Open
Hawaii:							
Hilo	35	35	2,300	1,400	2,787	122	496
Kawaihae	40	35	1,500	1,450	1,012	23	166
Maui:							
Kahului	35	35	2,400	2,050	3,019	124	703
Molokai:							
Kaunakakai	23	23	1,500	600	691	10	123
Oahu:							
Honolulu:							
Main	45	40	3,300	1,520	28,007	1,734	7,812
Kapalama		40	3,400	1,000			
Barbers Point .	42	38	2,100	1,800	-	-	-
Kauai:							
Nawiliwili	40	35	1,950	1,540	1,291	66	291
Port Allen	35	35	1,500	1,200	1,200	35	32

Source: Hawaii State Department of Transportation, Harbors Division, unpublished data, November 17, 1989.

Table 540.-- UNDOCUMENTED STATE-REGISTERED VESSELS: DECEMBER 31, 1988

Subject	Number	Subject	Number
Certificates outstanding .	14,250	Type of vessel:	
		Cabin motorboat	2,069
Length:		Open motorboat	5,201
Under 16 feet	5,758	Runabout	2,867
16 to less than 20 feet	4,155	Sail/inboard	459
20 to less than 40 feet	4,124	Sail/outboard	564
Over 40 feet	213	Sail only	1,299
Median (feet)	17.3	Motor vessel over 65 feet .	5
		Other	1,786
Hull material:			
Wood	1,518	Uses:	
Fiberglass	10,909	Pleasure	12,163
Metal	527	Commercial fishing	1,131
Inflatable	1,062	Charter fishing	25
Other	234	Commercial passenger	239
		Other commercial	61
Propulsion:		Livery	248
Inboard	1,006	Dealer or manufacturer	38
Outboard	8,357	Youth group	37
Inboard/outboard	2,093	Government	249
Sail/inboard	597	Other	59
Sail/outboard	623		
Sail only	1,063	Island kept:	
Manual	248	Hawaii	1,972
Other	263	Kauai	1,111
		Lanai	53
Type of storage:		Maui	1,303
On water	2,588	Molokai	187
On land	11,662	Oahu	9,624

Source: Hawaii State Department of Transportation, Harbors Division, Report of Undocumented Vessel Registration (annual).

Table 541.-- DOCUMENTED AND NUMBERED VESSELS REGISTERED IN HAWAII: 1984 TO 1989

Category	1984	1985	1986	1987	1988	1989
Documented 1/	1,203	1,306	1,348	1,389	1,380	1,600
Numbered 2/	13,122	13,443	14,052	14,008	14,250	...

1/ Vessels documented under the laws of the United States with the U.S. Coast Guard in Hawaii. All vessels over five net tons, used for commercial purposes, must be documented. In addition, yachts over five net tons may be documented. As of December 31, 1978 and June 30 thereafter.

2/ Non-documented numbered vessels registered with the Hawaii State Department of Transportation. Any mechanically propelled boat (including those with auxiliary engines), and any boat powered solely by sail if over eight feet in length, must be numbered. All data as of December 31.

Source: U.S. Coast Guard, Marine Safety Office, records; Hawaii State Department of Transportation, Report of Undocumented Vessel Registration (annual).

Table 542.-- BOATING ACCIDENTS: 1985 TO 1988

Year	Number of accidents		Number of persons		Number of vessels involved	Amount of damage ($1,000)
	Total	Fatal	Killed	Injured non-fatally		
1985	41	2	5	10	50	417.3
1986	54	3	3	14	69	293.0
1987	62	1	2	18	76	720.2
1988	31	4	5	11	41	209.6

Source: U.S. Department of Transportation, Coast Guard, Boating Statistics (annual); Hawaii State Department of Transportation, Harbors Division, Boating Branch, Reportable Boating Accident Statistics for the State of Hawaii for Period 1986 thru 1988 (Revised) and records.

Table 543.-- HARBOR DEPTHS AND VESSEL ARRIVALS, BY DRAFT: 1987

[Excludes domestic fishing craft]

Harbor	Controlling depth (feet)		Inbound vessels, by draft		
	Entrance channel	Basin	Total	18 feet and less	19 feet and more
Hilo	...	34.0	915	854	61
Kawaihae	42.0	36.0	556	533	23
Hana	...	...	-	-	-
Kahului	...	34.0	1,388	1,350	38
Kaunakakai	...	...	664	(NA)	(NA)
Kalaupapa	...	...	7	7	-
Honolulu	45.0	40.0	1/ 5,898	5,239	659
Barbers Point ..	42.0	38.0	438	333	105
Nawiliwili	41.0	33.0	723	706	17
Port Allen	...	...	65	(NA)	(NA)

NA Not available.

1/ By type of vessel: self propelled, 3,108 (953 passenger and dry cargo, 70 tanker, 2,085 towboat or tugboat); non-self propelled, 2,790 (2,175 dry cargo, 615 tanker).

Source: U.S. Department of the Army, Corps of Engineers, Waterborne Commerce of the United States, Calendar Year 1987, Part 4 (1989), pp. 31-36 and 112-113.

Table 544.-- SHIP ARRIVALS AT THE PORT OF HONOLULU: 1979 TO 1989

[Years ended June 30]

Year	Overseas vessels		Interisland vessels	
	Number	Gross tonnage	Number	Gross tonnage
1979	1,757	12,101,936	2,875	2,838,609
1980	1,963	10,483,989	2,338	2,572,778
1981	1,968	10,959,161	2,597	2,670,405
1982	1,943	9,604,985	2,496	2,598,632
1983	1,775	10,406,544	2,662	2,623,321
1984	1,686	10,397,905	2,660	3,649,085
1985	1,749	9,398,179	2,412	4,480,660
1986	1,825	9,450,373	2,697	4,913,219
1987	2,080	9,974,948	2,848	5,200,667
1988	2,014	10,548,893	3,172	(NA)
1989	2,024	11,219,662	3,101	(NA)

NA Not available.

Source: Hawaii State Department of Transportation, Harbors Division, records.

Table 545.-- OVERSEAS AND INTERISLAND PASSENGER ARRIVALS AND DEPARTURES, FOR HONOLULU HARBOR: 1984 TO 1989

[Fiscal years ended June 30]

Type of passenger	1984	1985	1986	1987	1988	1989
Overseas:						
In	9,492	5,337	6,537	8,681	5,815	15,993
Out	5,906	5,276	6,190	8,103	5,350	16,716
Interisland:						
In	58,571	72,665	84,943	71,049	77,731	78,710
Out	59,293	74,304	82,895	69,337	71,804	78,711

Source: Hawaii State Department of Transportation, Harbors Division, records.

Table 546.-- OVERSEAS AND INTERISLAND SHIPPING: 1982 TO 1987

[In short tons]

Calendar year	Overseas cargo			Interisland cargo		
	Total	In	Out	Total	In	Out
1982 ...	10,503,229	8,168,339	2,334,890	7,204,456	3,697,785	3,506,671
1983 ...	11,853,502	9,371,317	2,482,185	8,337,860	4,285,416	4,052,444
1984 ...	11,506,043	8,972,870	2,533,173	8,973,092	4,530,456	4,442,636
1985 ...	11,647,021	9,098,694	2,548,327	7,839,743	3,836,113	4,003,630
1986 ...	10,521,866	8,451,641	2,070,225	8,464,107	4,241,904	4,222,203
1987 ...	12,379,815	9,767,966	2,611,849	10,358,749	5,071,134	5,287,615

Source: U.S. Department of the Army, Corps of Engineers, Waterborne Commerce of the United States (annual) and printouts, as tabulated by the Hawaii State Department of Transportation, Harbors Division.

Table 547.-- FREIGHT AND PASSENGER TRAFFIC FOR SPECIFIED HARBORS: 1983 TO 1987

Harbor	1983	1984	1985	1986	1987
FREIGHT 1/ (SHORT TONS)					
Hilo	1,522,442	1,570,528	1,318,518	1,198,692	1,365,768
Kawaihae	441,458	545,508	526,639	592,018	871,202
Kahului	1,842,568	1,889,204	1,516,509	1,626,650	2,035,247
Honolulu	8,039,850	8,469,971	7,986,133	8,603,760	9,736,688
Barbers Point	7,051,230	6,564,687	6,751,709	5,629,312	7,135,064
Nawiliwili	1,008,699	944,770	933,477	745,396	916,422
PASSENGERS 2/					
Honolulu	688,689	741,922	1,102,398	708,268	154,082

1/ Excludes cargo carried by Army and Navy vessels and cargo in transit.

2/ Total arrivals and departures for transpacific, interisland, and local travel.

Source: U.S. Department of the Army, Corps of Engineers, Waterborne Commerce of the United States, Calendar Year 1987, Part 4 (1989), pp. 31-36.

Table 548.-- FREIGHT TRAFFIC, BY COMMODITIES, FOR SPECIFIED HARBORS: 1987

[In short tons. Commodities under 150,000 tons not shown separately]

Harbor and commodity	Total 1/	Foreign		Interstate		Interisland	
		Imports	Exports	Receipts	Shipments	Receipts	Shipments
Hilo	1,365,768	60,825	16,237	9,335	104,251	895,809	279,311
Petro. & coal prod. NEC .	241,989	-	-	-	-	241,989	-
Fabricated metal products	250,431	1,388	-	-	-	126,863	122,175
Kawaihae	871,202	42,505	29,849	2,937	287,121	297,353	211,437
Sugar	287,121	-	-	-	287,121	-	-
Fabricated metal products	188,161	715	-	38	-	98,525	88,921
Kahului	2,035,247	41,096	9,371	15,122	254,323	1,202,270	513,065
Sugar	255,196	-	-	-	254,323	-	873
Petro. & coal prod. NEC .	284,689	-	-	-	-	280,174	4,515
Fabricated metal products	309,143	2	5	18	-	187,892	121,226
Motor vehicles, parts, and equipment	191,518	2,234	3	32	-	126,399	62,850
Kaumalapau	243,504	-	-	1,004	-	52,450	190,050
Fresh fruits	188,732	-	-	-	-	101	188,631
Barbers Point	7,135,064	2,812,968	323,911	3,331,927	329,242	44,891	292,125
Crude petroleum	5,319,708	2,365,264	-	2,954,444	-	-	-
Distillate fuel oil	440,152	24,438	82,890	159,950	130,752	4,718	37,404
Residual fuel oil	1,046,392	409,449	227,057	179,253	81,287	21,340	128,006
Honolulu	9,736,688	683,679	226,639	2,749,993	900,041	1,797,864	3,157,369
Fresh fruits	322,282	1,570	30	17,583	82,620	218,730	1,749
Crude petroleum	221,091	134,133	-	86,958	-	-	-
Meat, fresh, chilled, frozen	162,573	6,879	1,728	129,608	24,358	-	-
Vegetables & prep. NEC ..	196,503	3,606	238	111,434	6,663	43,478	31,084
Prepared fruit & vegetable juice NEC	457,342	3,761	3,936	6,296	308,104	133,652	1,593
Animal feeds	150,770	26,606	416	64,797	-	4,914	54,037

Continued on next page.

Table 548.-- FREIGHT TRAFFIC, BY COMMODITIES, FOR SPECIFIED HARBORS: 1987 - Con.

Harbor and commodity	Total 1/	Foreign		Interstate		Interisland	
		Imports	Exports	Receipts	Shipments	Receipts	Shipments
Honolulu - Con.							
Sugar	184,150	101	344	1,581	181,073	830	221
Molasses	180,167	-	7,817	-	122,916	49,434	-
Alcoholic beverages	216,895	6,792	780	168,564	771	155	39,833
Lumber	260,126	127	3,089	188,151	1,361	2,613	64,785
Gasoline	233,702	24,310	9,843	60,079	6,489	16,760	109,093
Jet fuel	387,158	117,161	-	198,662	-	32,603	38,732
Distillate fuel oil	266,341	5,234	71,736	58,169	19,298	37,407	74,497
Residual fuel oil	393,243	-	4,729	485	3,948	128,006	42,242
Petro. & coal prod. NEC .	650,977	3	-	23,631	4,639	24,742	597,962
Fabricated metal product	1,179,151	7,549	787	74,773	1,492	484,345	610,205
Motor vehicles, parts, equipment	693,177	44,942	232	91,971	37,128	142,666	376,238
Pearl Harbor	136,124	-	-	2,073	3,564	24,268	106,219
Nawiliwili	908,588	-	-	5,524	127,294	534,704	241,066
Fabricated metal products	268,973	-	-	32	-	135,026	133,915
Kalaupapa	1,533	-	-	1,191	342	-	-
Kaunakakai	211,166	-	-	1,150	134,488	75,528	-
Port Allen	85,846	-	-	-	-	85,846	-

NA Not available.

1/ Includes internal shipments and local traffic, not separately shown. Such movements amounted to 221,103 tons, all at Honolulu.

Source: U.S. Department of the Army, Corps of Engineers, Waterborne Commerce of the United States, Calendar Year 1987, Part 4 (May 1989), pp. 31-37, and unpublished printouts.

Section 19

AGRICULTURE

This section presents statistics on agricultural land, farms, crops, livestock, dairy products, poultry, and aquaculture. Related information appears in Sections 6 (on land use), 12 and 15 (agricultural employment and earnings), and 22 (food processing).

There were 4,650 farms in Hawaii in 1988, with a total area of 1.72 million acres. The value of crop sales in 1988 was $485 million, or 58 percent higher than the total for 1978. Livestock sales amounted to $89 million, or 22 percent more than the 1978 level. Combined crop and livestock sales in 1988 ranged from $65 million in Kauai County to $195 million on the Big Island. Major crops were sugar ($210 million in sales, up 15 percent over the decade), pineapple ($107 million, or 70 percent over the 1978 total), flowers and nursery products ($60 million, or 242 percent more than in 1978), and macadamia nuts ($41 million, up 263 percent). Diversified crops, defined as all crops other than sugar and pineapple, rose from $62 million in 1978 to $168 million in 1988, or approximately 170 percent. About 675 farms sold $60 million of flowers and nursery products in 1988, chiefly anthuriums, potted foliage, and orchids. Important products of livestock farms as of 1988 included cattle and calves ($28 million in sales), milk ($32 million), and eggs ($14 million). In 1988, Hawaii produced 33 percent of the fresh market vegetables consumed locally, 35 percent of the fresh market fruits, 28 percent of the beef and veal, 20 percent of the pork, 18 percent of the chickens, and 90 percent of the eggs.

Aquaculture has been growing in importance in recent years, with an aggregate value rising from $525,000 in 1978 to $5.5 million in 1988. Shellfish production amounted to 703,000 pounds in 1988, with a value of $3.5 million.

Statistics on Hawaiian agriculture exclude pakalolo (marijuana) and other illicit plants. Authorities confiscated $1.9 billion worth of marijuana in 1988, but the proportion escaping detection is unknown.

Important sources for data on agriculture include the United States Census of Agriculture, most recently conducted in 1987, the annual report on Statistics of Hawaiian Agriculture issued by the Hawaii Agricultural Statistics Service, and data compiled by the Hawaiian Sugar Planters' Association and the Aquaculture Development Program of the Department of Land and Natural Resources. Agricultural data for earlier years are summarized in Historical Statistics of Hawaii, Section 13. National statistics appear in Section 23 of the Statistical Abstract of the United States: 1989.

Table 549.-- FARMS, LAND IN FARMS, AND SELECTED ITEMS: 1987 AND 1982

Item	All farms		Farms with sales of $1,000 or more	
	1987	1982	1987	1982
Farms .... number ..	4,870	4,595	2,049	1,775
Land in farms .... acres ..	1,721,521	1,957,501	1,634,955	1,858,568
Average size of farm acres ..	353	426	798	1,047
Value of land and buildings:				
Average per farm ... dollars ..	603,435	778,471	1,096,618	1,693,553
Average per acre ... dollars ..	1,707	1,826	1,374	1,617
Estimated market value of all machinery and equipment:				
Average per farm ... dollars ..	41,208	41,735	85,275	94,031
Farms by size:				
1 to 9 acres	2,855	2,743	976	820
10 to 49 acres	1,401	1,261	734	629
50 to 179 acres	341	320	151	145
180 to 499 acres	128	126	62	64
500 to 999 acres	31	33	21	21
1,000 acres or more	114	112	105	96
Total cropland .... farms ..	4,170	3,836	1,814	1,536
acres ..	327,396	346,113	299,180	324,830
Harvested cropland ..... farms ..	3,837	3,538	1,758	1,485
acres ..	152,719	155,960	145,422	149,843
Irrigated land .... farms ..	1,827	1,544	975	777
acres ..	148,884	145,982	146,907	143,986
Market value of agricultural products sold .... $1,000 ..	609,740	558,608	600,637	549,601
Average per farm ... dollars ..	125,203	121,569	293,137	309,635
Crops, including nursery and greenhouse crops .... $1,000 ..	498,317	456,069	491,320	449,457
Livestock, poultry, and their products .... $1,000 ..	111,424	102,539	109,317	100,144

Continued on next page.

Table 549.-- FARMS, LAND IN FARMS, AND SELECTED ITEMS: 1987 AND 1982 -- Con.

Item	All farms		Farms with sales of $1,000 or more	
	1987	1982	1987	1982
Farms by value of sales:				
Less than $2,500	1,402	1,454	-	-
$2,500 to $4,999	674	706	-	-
$5,000 to $9,999	745	653	-	-
$10,000 to $24,999	911	788	911	788
$25,000 to $49,999	476	397	476	397
$50,000 to $99,999	287	237	287	237
$100,000 or more	375	353	375	353
Operators by principal occupation:				
Farming	2,816	2,565	1,557	1,352
Other	2,054	2,030	492	423
Operators by days worked off farm:				
Any	2,728	2,534	909	722
200 days or more	1,476	1,371	470	375
Average age of operator .. years ..	53.0	52.7	51.1	51.5
Total farm production expenses .... $1,000 ..	495,759	(NA)	482,975	(NA)
Average per farm ... dollars ..	101,840	(NA)	235,828	(NA)
Selected farm production expenses:				
Livestock and poultry purchased .... $1,000 ..	15,230	17,581	14,646	17,032
Feed for livestock and poultry .... $1,000 ..	42,629	41,548	42,095	40,889
Interest expense ...... $1,000 ..	22,930	17,771	21,407	16,665
Petroleum products .... $1,000 ..	17,197	19,864	16,065	18,759
Livestock and poultry:				
Cattle and calves inventory .... farms ..	1,003	1,040	259	268
number ..	211,045	241,969	193,062	219,651
Beef cows .... farms ..	724	784	198	208
number ..	83,427	90,523	76,126	81,629
Milk cows .... farms ..	73	88	27	38
number ..	11,836	12,767	11,736	12,662
Cattle and calves sold farms ..	807	817	225	241
number ..	101,315	91,675	96,239	86,603

Continued on next page.

Table 549.-- FARMS, LAND IN FARMS, AND SELECTED ITEMS: 1987 AND 1982 -- Con.

Item	All farms		Farms with sales of $1,000 or more	
	1987	1982	1987	1982
Livestock and poultry, con.:				
Hogs and pigs inventory farms ..	372	371	136	132
number ..	47,564	49,029	42,784	42,683
Hogs and pigs sold ..... farms ..	307	319	127	126
number ..	69,019	66,875	64,618	61,919
Sheep and lambs inventory .... farms ..	42	34	11	8
number ..	(D)	(D)	(D)	(D)
Chicken 3 months old or older inventory ...... farms ..	181	201	56	58
number ..	(D)	929,210	(D)	921,810
Broilers and other meat-type chickens sold ... farms ..	12	23	8	15
number ..	2,069,316	3,173,500	2,069,219	3,172,382
Selected crops harvested:				
Sugarcane for sugar .... farms ..	79	188	62	157
acres ..	79,234	89,696	79,140	(D)
tons ..	7,934,181	8,950,242	7,929,989	8,941,044
Pineapples harvested ... farms ..	18	15	12	14
acres ..	22,262	23,141	22,254	(D)
tons ..	683,182	626,860	683,086	(D)
Vegetables harvested for sale .... farms ..	710	746	428	366
acres ..	5,587	4,673	5,165	4,133
Land in orchards .... farms ..	2,128	1,825	796	612
acres ..	33,564	23,178	27,525	18,656
Macadamia nuts .... farms ..	1,036	879	377	307
acres ..	23,233	15,472	20,284	13,960
pounds ..	44,464,884	35,594,548	42,380,242	34,258,992
Nursery and greenhouse crops .... farms ..	1,139	1,050	573	467
sales, $1,000 ..	56,527	35,973	(D)	34,062

(D) Witheld to avoid disclosing data for individual farms.

Source: U.S. Bureau of the Census, *1987 Census of Agriculture, Advance State Report, Hawaii*, AC87-A-15-000(A) (May 1989).

Table 550.-- FARMS AND LAND IN FARMS, FOR COUNTIES: 1987

Item	Hawaii	Honolulu	Kauai	Maui
Farms .... number ..	2,810	938	400	722
Land in farms .... acres ..	1,007,287	130,771	224,153	359,310
Average size of farm acres ..	358	139	560	498
Value of land and buildings:				
Average per farm .. dollars ..	573,527	440,397	709,213	873,008
Average per acre .. dollars ..	1,600	3,159	1,266	1,754
Estimated market value of all machinery and equipment:				
Average per farm .. dollars ..	27,187	39,523	70,317	81,608
Farms by size:				
1 to 9 acres	1,602	707	181	365
10 to 49 acres	883	156	139	223
50 to 179 acres	180	31	51	79
180 to 499 acres	71	21	11	25
500 to 999 acres	14	7	5	5
1,000 acres or more	60	16	13	25
Total cropland .... farms ..	2,561	742	294	573
acres ..	137,924	49,887	50,146	89,439
Harvested cropland ..... farms ..	2,390	716	235	496
acres ..	63,098	24,779	21,890	42,952
Irrigated land .... farms ..	644	583	190	410
acres ..	12,899	36,301	32,486	67,198
Market value of agricultural products sold .... $1,000 ..	219,756	168,824	67,847	153,313
Average per farm .. dollars ..	78,205	179,983	169,619	212,345
Crops, including nursery and greenhouse crops ... $1,000 ..	195,140	100,356	62,099	140,722
Livestock, poultry, and their products .... $1,000 ..	24,616	68,468	5,748	12,591

Source: U.S. Bureau of the Census, 1987 Census of Agriculture, Geographic Area Series, Hawaii, State and County Data, AC87-A-11 (August 1989), pp. 130-132.

Table 551.-- EMPLOYMENT IN AGRICULTURE: 1900 TO 1988

Year	Number	Percent of total	Year	Number	Percent of total
1900	55,931	62.0	1950 1/	31,806	19.0
1910	54,742	54.1	1960 1/	15,981	7.6
1920	54,803	49.0	1970 1/	13,161	4.6
1930	61,811	40.1	1980 1/	14,560	3.5
1940 1/ ...	54,629	35.5	1988 1/	13,600	2.6

1/ Agriculture, forestry, and fisheries.

Source: Robert C. Schmitt, Historical Statistics of Hawaii (1977), pp. 122-124; present volume, tables 342 and 346.

Table 552.-- GENERAL EXCISE TAX BASE FOR PRODUCING: 1978 TO 1988

[In thousands of dollars. Data are on a cash basis accounting. "Producing" refers to the raising and production of agricultural products in their natural state, the production of natural resource products, fishing, and aquaculture; see HRS, 1985 Replacement, Section 237-5]

Year 1/	Amount	Year 1/	Amount	Year 1/	Amount
1978 2/ ...	151,955	1982	173,891	1986	250,954
1979	156,873	1983	220,298	1987	274,202
1980	143,694	1984	242,641	1988 3/ ..	298,261
1981	176,582	1985	262,791		

1/ Calendar year in which reported, including "prior years" reports. Income received in December is reported the following January, hence these annual totals generally refer to an "income year" ended November 30.

2/ Partly estimated.

3/ Data exclude tax base for unallocated collections, distributed for earlier years.

Source: Hawaii State Department of Taxation, "General Excise and Use Tax Base" (annual tabular release).

Table 553.-- NUMBER OF FARMS, FARM ACREAGE, AND FARM EMPLOYMENT: 1970 TO 1988

Year	Number of farms 1/	Farm acreage 2/ (1,000)	Farm employment 3/		
			Self-employed farm operators	Unpaid family members	Hired workers
1970	4,500	2,300	3,200	1,450	12,450
1971	4,400	2,300	3,050	1,500	11,810
1972	4,300	2,300	3,050	1,550	11,220
1973	4,300	2,300	3,050	1,550	10,770
1974	3,800	2,200	3,040	1,660	10,180
1975	3,900	2,150	3,060	1,720	11,040
1976	4,000	2,100	2,890	1,560	11,240
1977	4,100	2,050	2,840	1,550	11,300
1978	4,300	1,980	2,890	1,810	11,600
1979	4,300	1,980	3,020	1,520	10,800
1980	4,300	1,970	3,400	1,100	10,550
1981	4,400	1,965	3,100	900	10,500
1982	4,500	1,960	2,600	1,300	13,000
1983	4,500	1,900	2,500	1,500	13,000
1984	4,600	1,850	2,200	1,300	11,800
1985	4,600	1,800	2,200	1,200	10,600
1986	4,600	1,750	2,050	1,200	9,700
1987	4,650	1,720	2,600	1,100	10,700
1988	4,650	1,720	2,600	1,100	10,300

1/ Based on farm definition of $600 or more of agricultural sales prior to 1974 and $1,000 or more thereafter.

2/ Includes land not in crop and pasture, such as farm house lots, roads, woodlots, etc.

3/ Annual averages through 1980, and varying dates thereafter.

Source: Hawaii Agricultural Statistics Service, Statistics of Hawaiian Agriculture (annual) and records.

Table 554.-- VALUE OF CROP AND LIVESTOCK SALES: 1970 TO 1988

[$1,000]

Year	All crops and livestock	Crops				Livestock
		All crops	Sugar (unprocessed cane)	Pineapples (fresh equiv.)	Other crops	
1970	213,667	172,019	110,600	39,500	21,919	41,648
1971	221,692	178,639	115,800	40,300	22,539	43,053
1972 1/ ...	232,760	186,518	117,300	43,900	25,318	46,242
1973 1/ ...	266,161	210,892	141,900	39,600	29,392	55,269
1974	575,432	517,523	442,300	40,259	34,964	57,909
1975	377,575	319,304	237,000	41,616	40,688	58,271
1976	327,820	265,498	164,700	52,983	47,815	62,322
1977	325,182	260,164	144,200	62,249	53,715	65,018
1978	380,655	308,098	182,700	63,090	62,308	72,557
1979	441,253	362,789	217,600	69,409	75,780	78,464
1980	634,101	552,877	385,100	76,596	91,181	81,224
1981	489,502	401,348	207,500	89,745	104,103	88,154
1982	507,268	428,860	230,800	94,364	103,696	78,408
1983	568,413	481,925	266,900	100,376	114,649	86,488
1984	550,517	463,502	256,200	89,928	117,374	87,015
1985	528,649	445,826	222,400	90,530	132,896	82,823
1986	564,717	481,312	233,800	99,720	147,792	83,405
1987 1/ ...	557,298	469,565	218,000	99,286	152,279	87,733
1988	574,089	485,469	209,900	107,402	168,167	88,620

1/ Revised from Data Book 1988, table 581.

Source: Hawaii Agricultural Statistics Service, Statistics of Hawaiian Agriculture (annual) and records.

Table 555.-- NUMBER OF FARMS, FARM ACREAGE, AND FARM EMPLOYMENT, BY COUNTIES OR ISLANDS: 1978, 1987, AND 1988

County or island	Number of farms 1/	Farm acreage 2/ (1,000)	Farm employment 3/		
			Self-employed farm operators	Unpaid family members	Hired workers
State total:					
1978	4,300	1,980	2,890	1,810	11,600
1987 4/	4,650	1,720	2,600	1,100	10,700
1988	4,650	1,720	2,600	1,100	10,300
Hawaii County:					
1978	2,650	1,150	1,710	1,150	3,560
1987 4/	2,700	1,010	1,725	750	3,800
1988	2,700	1,010	1,750	725	3,700
Maui County:					
1978	500	425	360	225	3,390
1987 4/	600	360	260	140	2,800
1988	600	360	250	125	2,650
Oahu:					
1978	1,000	125	600	340	2,960
1987 4/	950	125	460	160	2,800
1988	950	125	475	175	2,700
Kauai County:					
1978	250	280	210	100	1,610
1987 4/	400	225	160	50	1,300
1988	400	225	140	60	1,200

1/ Based on farm definition of $1,000 or more of agricultural sales.

2/ Includes land not in crops and pasture, such as farm house lots, roads, woodlots, etc.

3/ Data not comparable among years shown due to changes in survey periods; sum of county estimates may not add due to rounding.

4/ Revised from Data Book 1988, table 580.

Source: Hawaii Agricultural Statistics Service, Statistics of Hawaiian Agriculture (annual).

Table 556.-- VALUE OF CROP AND LIVESTOCK SALES, BY COUNTIES OR ISLANDS: 1978, 1987, AND 1988

[$1,000]

County and year	All crops and livestock	Crops				Live-stock
		All crops	Sugar (unpro-cessed cane)	Pine-apples (fresh equiv.)	Other crops	
State total:						
1978	380,655	308,098	182,700	63,090	62,308	72,557
1987 1/ ...	557,298	469,565	218,000	99,286	152,279	87,733
1988	574,089	485,469	209,900	107,402	168,167	88,620
Hawaii County:						
1978	123,292	103,348	68,600	-	34,748	19,946
1987 1/	180,306	153,891	64,400	-	89,491	26,415
1988	194,646	165,619	60,000	-	105,619	29,027
Maui County:						
1978	91,467	82,300	43,600	28,340	10,360	9,167
1987 1/	146,717	136,126	66,900	46,366	22,860	10,591
1988	138,037	128,878	66,200	39,141	23,537	9,159
Oahu:						
1978	118,864	79,732	30,900	34,750	14,082	39,131
1987 1/	166,738	121,084	35,500	52,920	32,664	45,654
1988	176,613	130,928	31,900	68,261	30,767	45,685
Kauai County:						
1978	47,032	42,718	39,600	-	3,118	4,313
1987 1/	63,537	58,464	51,200	(2/)	7,264	5,073
1988	64,793	60,044	51,800	(2/)	8,244	4,749

1/ Revised from Data Book 1988, table 583.
2/ Less than $50,000.
Source: Hawaii Agricultural Statistics Service, Statistics of Hawaiian Agriculture (annual) and records.

Table 557.-- ACREAGE IN CROP, NUMBER OF CROP FARMS, VOLUME OF CROP MARKETINGS, AND VALUE OF CROP SALES: 1978, 1987, AND 1988

Subject	1978	1987 1/	1988
Acreage in crop (1,000 acres):			
Sugarcane	220.7	181.1	176.5
Pineapples (land used for pineapple)	43.0	36.1	34.6
Vegetables and melons (harvested acreage)	4.0	5.6	5.2
Fruits, excluding pineapples	5.2	7.0	7.6
Coffee	2.3	2.4	2.6
Macadamia nuts	10.2	21.5	21.9
Miscellaneous crops	6.0	6.0	7.4
Number of crop farms:			
Sugar	480	100	75
Pineapples	16	12	12
Vegetables and melons	542	660	575
Fruits (excluding pineapples)	641	774	775
Coffee	750	630	635
Macadamia nuts	464	650	660
Taro	132	140	155
Flowers and nursery products	600	670	675
Volume of crop marketings:			
Sugar, unprocessed cane (1,000 tons)	9,263	8,014	7,606
Pineapples, fresh equivalent (1,000 tons)	675	692	659
Vegetables and melons (1,000 lb.)	72,010	95,330	92,730
Fruits, excluding pineapples (1,000 lb.)	79,120	99,330	104,570
Coffee, parchment (1,000 lb.)	1,680	1,800	2,000
Macadamia nuts, in shell (1,000 lb.)	20,980	42,700	45,500
Taro (1,000 lb.)	7,680	6,300	6,800
Value of crop sales ($1,000):			
Sugar (unprocessed cane)	182,700	218,000	209,900
Pineapples (fresh equivalent)	63,090	99,286	107,402
Vegetables and melons	16,585	30,556	30,917
Fruits (excluding pineapples)	10,488	17,431	20,477
Coffee (parchment)	2,117	4,860	6,600
Macadamia nuts (in shell)	11,287	35,868	40,950
Taro	1,029	1,676	1,904
Field crops (not estimated separately)	3,224	6,947	7,423
Flowers and nursery products	17,458	54,731	59,646

NA Not available.

1/ Revised from Data Book 1988, table 584.

Source: Hawaii Agricultural Statistics Service, Statistics of Hawaiian Agriculture (annual).

Table 558.-- ACREAGE IN CROP, NUMBER OF CROP FARMS, VOLUME OF CROP MARKETINGS, AND VALUE OF CROP SALES, BY GEOGRAPHIC AREAS: 1988

Subject	Hawaii County	Maui County	Oahu	Kauai County
Acreage in crop (1,000 acres):				
Sugarcane	66.7	42.2	25.7	41.9
Pineapples (land used for pineapple)	-	21.3	13.3	1/
Vegetables and melons (harvested acreage)	1.8	2.3	1.0	0.1
Fruits, excluding pineapples	5.9	0.1	0.9	0.7
Coffee	2.6	-	-	-
Macadamia nuts	(D)	(D)	(D)	(D)
Miscellaneous crops	3.1	1.9	1.6	0.8
Number of crop farms:				
Sugar	64	3	3	5
Pineapples	-	7	2	3
Vegetables and melons	290	90	160	35
Fruits (excluding pineapples)	526	43	139	67
Coffee	635	-	-	-
Macadamia nuts	640	9	3	8
Taro	92	14	7	42
Flowers and nursery products	325	85	230	35
Volume of crop marketings:				
Sugar, unprocessed cane (1,000 tons)	2,300	2,128	1,169	2,009
Pineapples, fresh equivalent (1,000 tons)	-	388	271	2/
Vegetables and melons (1,000 lb.)	33,420	46,570	11,750	990
Fruits, excluding pineapples (1,000 lb.)	83,960	990	6,850	12,770
Coffee, parchment (1,000 lb.)	2,000	-	-	-
Macadamia nuts, in shell (1,000 lb.)	(D)	(D)	(D)	(D)
Taro (1,000 lb.)	1,530	(D)	(D)	4,410
Value of crop sales ($1,000):				
Sugar (unprocessed cane)	60,000	66,200	31,900	51,800
Pineapples (fresh equivalent)	-	39,141	68,261	3/
Vegetables and melons	13,035	11,080	6,443	359
Fruits (excluding pineapples)	16,184	220	1,994	2,079
Coffee (parchment)	6,600	-	-	-
Macadamia nuts (in shell)	(D)	(D)	(D)	(D)
Taro	534	(D)	(D)	1,155
Field crops (not estimated separately)	607	3,308	864	2,644
Flowers and nursery products	29,036	7,257	21,404	1,949

D Withheld to avoid disclosure of individual operations.

1/ Less than 500 acres.

2/ Less than 500 tons.

3/ Less than $50,000.

Source: Hawaii Agricultural Statistics Service, Statistics of Hawaiian Agriculture 1988.

Table 559.-- VEGETABLES, MELONS, FRUITS, NUTS, COFFEE, AND TARO: 1988

[Data shown for crops with sales in excess of $500,000]

Crop	Acreage harvested 1/	Yield per acre (1,000 lb.)	Production (1,000 lb.)	Farm price (cents per lb.)	Value of sales ($1,000)
Vegetables and melons:					
Snap beans	160	5.9	950	78.6	747
Chinese cabbage	450	18.4	8,300	17.3	1,436
Head cabbage	560	27.9	15,620	16.4	2,562
Celery	85	25.9	2,200	22.9	504
Cucumbers	220	18.0	3,950	33.0	1,304
Daikon	230	14.3	3,300	19.4	640
Eggplant	50	23.6	1,180	55.8	658
Ginger root	165	49.1	8,100	62.0	5,022
Lettuce (head, semi-head)	360	12.5	4,500	36.4	1,638
Dry onions	150	9.5	1,420	78.3	1,112
Green peppers	170	8.4	1,430	48.5	694
Tomatoes	250	28.0	7,000	48.5	3,395
Watermelons	790	23.9	18,900	11.7	2,211
Green onions	170	7.3	1,240	86.1	1,068
Watercress	35	34.3	1,200	100.0	1,200
Romaine	150	11.2	1,680	33.1	556
Sweet Potatoes	140	11.0	1,540	34.4	530
Mustard Cabbage	120	10.5	1,260	40.4	509
Fruits:					
Bananas	1,070	12.1	12,900	33.0	4,257
Guavas	865	21.5	18,560	13.4	2,487
Papayas	2,300	30.0	69,000	17.4	12,354
Macadamia nuts (1988-1989)	16,600	2.7	45,500	90.0	40,950
Coffee (1988-1989)	2,150	0.9	1,600	3.3	6,600
Taro	420	16.2	6,800	28.0	1,904

1/ Acreage bearing for macadamia nuts; acreage in crop for watercress and taro.

Source: Hawaii Agricultural Statistics Service, Statistics of Hawaiian Agriculture 1988.

Table 560.-- SUGARCANE ACREAGE, BY TYPE OF IRRIGATION: 1972 TO 1988

Year	Total cane land	Irrigated cane land		Unirrigated cane land
		Drip	Furrow or overhead	
1972	229,611	327	119,704	109,580
1973	226,580	2,544	116,136	107,900
1974	224,227	5,662	112,919	105,646
1975	221,426	12,719	103,998	104,709
1976	221,551	21,250	98,797	101,504
1977	220,729	30,042	91,368	99,319
1978	220,697	39,167	80,207	101,323
1979	218,773	49,202	70,936	98,635
1980	217,718	60,241	58,966	98,511
1981	216,099	69,665	48,493	97,941
1982	204,749	73,551	41,896	89,302
1983	194,258	80,019	33,459	80,780
1984	188,396	86,925	26,325	75,146
1985	187,858	89,129	24,323	74,406
1986	184,179	90,877	19,526	73,776
1987	180,967	88,812	18,602	73,553
1988	177,693	88,387	17,791	71,515

Source: Hawaiian Sugar Planters' Association, records; Alexander & Baldwin, Inc., "Water to the Roots," Ampersand, Spring 1987, pp. 3-6.

Table 561.-- FRESH FRUIT AND VEGETABLE ARRIVALS IN HONOLULU, BY SOURCE: 1986 TO 1988

[1,000 pounds, net]

Source	1986	1987	1988
Total arrivals	291,212	295,701	305,515
From Hawaii	103,793	102,078	101,541
Oahu 1/	44,582	40,160	36,736
Other islands 2/	59,211	61,918	64,805
Hawaii 2/	27,932	29,510	31,257
Maui 2/	15,512	16,229	16,007
Molokai 2/	13,295	14,279	16,548
Kauai 2/	2,472	1,900	993
From U.S. Mainland 2/	179,647	183,952	195,537
From foreign countries 2/	7,772	9,671	8,437

1/ Wholesalers' truck receipts.

2/ Ship and plane arrivals.

Source: Hawaii State Department of Agriculture, Market News Service, Honolulu Arrivals, Fresh Fruits and Vegetables, 1988 (June 1989), table 1, as corrected.

Table 562.--FEED INSHIPMENTS FROM ALL SOURCES: 1983 TO 1986

[1,000 tons. This survey was discontinued after 1986]

Commodity	1983	1984	1985	1986
Total feed	193.0	191.6	170.2	141.4
Feed grains	89.8	88.4	78.4	68.4
Mixed feeds	24.5	21.8	18.5	14.5
Alfalfa products	30.2	32.3	24.1	19.5
Protein foods	26.5	29.6	28.6	25.4
Other feed stuff	21.9	19.5	20.6	13.6

Source: Hawaii Agricultural Statistics Service, Statistics of Hawaiian Agriculture 1987.

Table 563.-- LIVESTOCK INVENTORY, 1978, 1987, AND 1988, AND BY GEOGRAPHIC AREAS, 1988

[In thousands]

Year and geographic area	All cattle and calves 1/	Milk cows 1/	Hogs and pigs 2/	Chickens (excluding broilers) 2/	Bee colonies
1978	234	13	54	1,333	7
1987	199	12	47	1,212	9
1988	208	12	43	1,217	9
GEOGRAPHIC AREAS: 1988					
Hawaii County	128.7	1.7	4.0	204	(NA)
Maui	27.6	1.0	7.1	(3/)	(NA)
Molokai and Lanai	1.5	-	0.6	(3/)	(NA)
Oahu	36.8	9.0	27.3	1,013	(NA)
Kauai County	13.4	0.5	4.0	(3/)	(NA)

NA Not available.

1/ As of January 1.

2/ As of December 1.

3/ Kauai, Maui, and Molokai combined with Hawaii to avoid disclosure of individual operations.

Source: Hawaii Agricultural Statistics Service, Statistics of Hawaiian Agriculture (annual).

Table 564.-- NUMBER OF LIVESTOCK OPERATIONS, VOLUME OF LIVESTOCK MARKETINGS, AND VALUE OF LIVESTOCK SALES: 1978, 1987, AND 1988

Subject	1978	1987 1/	1988
Number of livestock operations, Dec. 31:			
Cattle 2/	800	800	800
Hogs	650	600	600
Milk	70	90	90
Eggs	60	55	55
Broilers	10	8	8
Honey	25	14	12
Volume of livestock marketings:			
Beef (dressed weight; 1,000 lb.) 3/	33,544	34,335	31,403
Pork (dressed weight; 1,000 lb.)	9,869	8,431	8,217
Milk (million lb.)	147.3	153.7	157.1
Eggs (million)	218	223.3	224.4
Broilers and chickens (1,000 lb.) 4/	6,786	7,988	7,994
Honey (1,000 lb.)	812	1,710	1,611
Value of livestock sales ($1,000):			
Cattle 5/	24,370	27,401	27,984
Hogs 5/	7,961	8,509	8,381
Milk	23,715	31,201	32,190
Eggs	12,699	14,291	13,801
Broilers and chickens	3,335	5,119	5,110
Other 6/	477	1,212	1,154

1/ Revised from Data Book 1988, table 591.

2/ Includes beef, dairy, and dairy replacement farms.

3/ Includes slaughter cattle, but excludes calves shipped out-of-State.

4/ Ready-to-cook weight.

5/ Excludes interfarm sales; includes out-of-State sales of slaughter cattle and feeder calves.

6/ Includes sheep, wool, turkeys, horses, honey, and beeswax.

Source: Hawaii Agricultural Statistics Service, Statistics of Hawaiian Agriculture (annual).

Table 565.-- NUMBER OF LIVESTOCK OPERATIONS, VOLUME OF LIVESTOCK MARKETINGS, AND VALUE OF LIVESTOCK SALES, BY GEOGRAPHIC AREAS: 1988

Subject	Hawaii County	Maui County	Oahu	Kauai County
Number of livestock operations, Dec. 31:				
Cattle 1/	370	190	70	170
Hogs	80	100	300	120
Milk	41	16	20	13
Eggs	25	7	19	4
Broilers	-	-	7	1
Honey	4	4	1	3
Volume of livestock marketings:				
Beef 2/ (dressed weight; 1,000 lb.)	26,188	3,229	759	1,227
Pork (dressed weight; 1,000 lb.)	564	1,921	4,670	1,062
Milk (million lb.)	(D)	(D)	120.7	(D)
Eggs (million)	(D)	(D)	180.9	(D)
Broilers and chickens 3/ (1,000 lb.)	(D)	(D)	(D)	(D)
Honey (1,000 lb.)	(D)	(D)	(D)	(D)
Value of livestock sales ($1,000):				
Cattle 4/	23,274	3,128	561	1,021
Hogs 4/	590	2,074	4,577	1,140
Milk	(D)	(D)	24,912	(D)
Eggs	(D)	(D)	10,865	(D)
Broilers and chickens	(D)	(D)	(D)	(D)
Other 5/	649	201	56	248

D Withheld to avoid disclosure of individual operations.

1/ Includes beef, dairy, and dairy replacement farms.

2/ Includes slaughter cattle, but excludes calves shipped out-of-State.

3/ Ready-to-cook weight.

4/ Excludes interfarm sales; includes out-of-State sales of slaughter cattle and feeder calves.

5/ Includes sheep, wool, turkeys, horses, honey, and beeswax.

Source: Hawaii Agricultural Statistics Service, Statistics of Hawaiian Agriculture 1988.

Table 566.-- FLOWERS AND NURSERY PRODUCTS, 1986 TO 1988, AND BY ISLANDS, 1988

Island and year	Number of farms	Growing area: Total (acres)	Growing area: Green-house (1,000 sq. ft.)	Growing area: Artificial shade structure (1,000 sq. ft.)	Growing area: Natural shade area (acres)	Growing area: Open field (acres)	Value of sales ($1,000)
State total:							
1986 1/	635	1,667	2,535	27,610	70	905	49,132
1987 1/	670	1,840	3,314	27,394	55	1,080	54,731
1988	675	1,833	4,690	23,800	70	1,109	59,646
Islands, 1988:							
Hawaii	325	1,094	2,603	18,624	65	541	29,036
Kauai	35	50	47	195	-	45	1,949
Maui/Molokai .	85	287	307	432	4	266	7,257
Oahu	230	402	1,733	4,549	1	257	21,404

1/ Revised from Data Book 1988, table 593.
Source: Hawaii Agricultural Statistics Service, Hawaii Flowers & Nursery Products, Annual Summary (August 16, 1989).

Table 567.-- VALUE OF SALES, TOTAL AND OUT-OF-STATE, FOR FLOWERS AND NURSERY PRODUCTS: 1984 TO 1988

[$1,000]

Subject	1984	1985	1986	1987 1/	1988
Total sales 2/	38,905	44,162	49,132	54,731	59,646
Anthuriums, cut	7,351	7,645	9,878	8,652	8,022
Out-of-State sales 3/ .	21,610	24,284	28,136	31,904	33,042
Anthuriums, cut	7,050	7,581	8,653	9,170	8,816

1/ Revised from Data Book 1988, table 594.
2/ Wholesale value only.
3/ Includes wholesale and retail sales.
Source: Hawaii Agricultural Statistics Service, Hawaii Flowers and Nursery Products, Annual Summary (August 16, 1989).

Table 568.-- FLOWERS AND NURSERY PRODUCTS, BY COMMODITY: 1988

[Shown for commodities with value of sales over $750,000]

Commodity	Number of farms	Number sold		Value of sales ($1,000)
		Unit	Number	
Selected cut flowers:				
Anthuriums	156	1,000 dozens	1,822	8,022
Heliconias	83	1,000 dozens	206	1,364
Protea	43	1,000 stems	1,488	1,214
Roses, tea	13	1,000 dozens	609	2,647
Orchids:				
Sprays: Dendrobium	83	1,000 dozens	417	2,639
Potted: Dendrobiums	76	1,000 pots	481	2,019
Lei flowers:				
Carnations	17	Million blooms	23.3	972
Tuberose	6	Million blooms	43.6	1,198
Vanda, Miss Joaquim	24	Million blooms	311.1	888
Ornamentals and trees	62	...	(NA)	2,226
Foliage:				
Potted, primarily for--				
Indoor or patio use	86	...	(NA)	12,424
Landscape use	47	...	(NA)	4,751
Unfinished stock (for further growing on)	55	...	(NA)	1,795
Potted flowering plants:				
Chrysanthemums	12	1,000 pots	233	781
Poinsettias	39		227	813

NA Not available.

Source: Hawaii Agricultural Statistics Service, Hawaii Flowers & Nursery Products, Annual Summary (August 16, 1989).

Table 569.-- MARKET SUPPLY OF SPECIFIED FOODS: 1978, 1987, AND 1988

Commodity and year	Total market supply 1/			Per capita market supply 2/	Percent from Hawaii
	Total	Inshipment	Hawaii		
Fresh market fruits:					
1978	75,944	53,805	22,139	74.9	29.2
1987 3/	113,514	75,139	38,375	94.5	33.8
1988	115,316	75,221	40,095	94.6	34.8
Fresh market melons:					
1978	12,376	10,506	1,870	12.2	15.1
1987 3/	27,809	14,009	13,800	23.2	49.6
1988	34,456	15,556	18,900	28.3	54.9
Fresh market vegetables:					
1978	166,369	97,345	69,024	164.0	41.5
1987 3/	219,605	139,485	80,120	182.9	36.5
1988	221,586	149,251	72,335	181.8	32.6
Beef and veal: 4/					
1978	94,243	60,699	33,544	92.9	35.6
1987	109,015	74,680	34,335	90.8	31.5
1988	110,589	79,186	31,403	90.7	28.4
Pork: 4/					
1978	31,945	22,076	9,869	31.5	30.9
1987	39,678	31,247	8,431	33.0	21.2
1988	40,713	32,496	8,217	33.4	20.2
Chickens:					
1978	30,468	23,682	6,786	30.0	22.3
1987	42,323	34,335	7,988	35.2	18.9
1988	43,739	35,745	7,994	35.9	18.2
Eggs:					
1978	20,072	1,914	18,158	19.8	90.5
1987	22,105	3,497	18,608	18.4	84.2
1988	20,791	2,091	18,700	17.1	89.9

1/ Eggs in 1,000 dozens; other foods in 1,000 pounds.

2/ Eggs in dozens; other foods in pounds. Based on de facto population estimates in table 3.

3/ Revised from Data Book 1988, table 596.

4/ Carcass weight equivalent.

Source: Hawaii Agricultural Statistics Service, Statistics of Hawaiian Agriculture (annual).

Table 570.-- LAND EVALUATION RATING, FOR SIX MAJOR ISLANDS: 1985

[Thousand acres. The Land Evaluation and Site Assessment Commission land evaluation rating is a composite index, scaled from 0 to 100, based on measurements of soil productivity and the suitableness of land for agricultural purposes. Data exclude Kahoolawe, Niihau, Lehua, Kaula, and the Northwestern Hawaiian Islands]

Land evaluation rating	Six-island total	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai
Total area	4,042	2,579	466	90	166	386	355
90 to 100	66	-	17	3	7	39	-
80 to 89	137	17	39	11	16	33	20
70 to 79	189	95	20	2	6	27	40
60 to 69	212	125	36	(Z)	9	22	20
50 to 59	221	113	64	3	10	12	18
40 to 49	309	227	40	6	10	18	7
30 to 39	605	543	29	1	3	11	17
20 to 29	492	282	55	48	50	30	26
10 to 19	1,813	1,176	165	15	55	194	206
Under 10	-	-	-	-	-	-	-
Mean rating ...	32.8	29.8	40.8	36.7	37.6	40.1	32.9

Z Less than 500 acres.

Source: Land Evaluation and Site Assessment Commission, A Report on the State of Hawaii Land Evaluation and Site Assessment System (February 1986), Exhibit A.

Table 571.-- AGRICULTURAL CHEMICALS USED, INCLUDING FERTILIZER AND LIME: 1978 TO 1987

Chemicals used		1978	1982	1987
Any chemicals, fertilizer, or lime used	farms	3,568	3,532	4,105
Commercial fertilizer	farms	3,172	3,158	3,524
	acres on which used	284,452	228,982	225,457
	$1,000	26,530	33,477	30,717
Lime	farms	525	525	825
	acres on which used	12,488	9,547	21,544
	tons	12,011	10,423	23,220
Agricultural chemicals 1/	farms	3,277	3,084	3,881
	$1,000	13,700	16,417	18,233
Sprays, dusts, granules, fumigants, etc., to control --				
Insects on hay and other crops	farms	1,204	1,702	2,008
	acres on which used	28,787	45,671	68,150
Nematodes in crops	farms	441	654	663
	acres on which used	9,806	9,638	15,792
Diseases in crops and orchards	farms	912	1,067	1,151
	acres on which used	12,310	18,085	(D)
Weeds, grass, or brush in crops and pasture	farms	2,325	2,385	2,887
	acres on which used	269,801	213,551	235,871
Chemicals used for defoliation or for growth control of crops or thinning of fruit	farms	160	165	212
	acres on which used	57,280	50,455	57,481

D Withheld to avoid disclosing data for individual farms.

1/ Data after 1978 exclude the cost of lime.

Source: U.S. Bureau of the Census, 1987 Census of Agriculture, Geographic Area Series, Hawaii, State and County Data, AC87-A-11 (August 1989), table 15, p. 19.

Table 572.-- AQUACULTURE INDUSTRY OPERATIONS: 1970 TO 1988

Year	Number of operations, Dec. 31		Acreage, Dec. 31	Production (1,000 lb.)	Value ($1,000)
	Total	Prawn producers			
1970	2	1	193	20	11
1971	2	1	193	17	17
1972	2	1	193	18	23
1973	3	2	203	34	34
1974	4	3	213	41	136
1975	10	3	234	82	178
1976	14	6	235	94	210
1977	25	13	246	123	281
1978	25	16	320	178	525
1979	23	19	493	246	1,531
1980	37	24	575	320	1,655
1981	41	21	547	338	1,868
1982	44	22	643	551	2,625
1983	42	21	496	345	1,605
1984	47	17	474	441	2,300
1985	48	20	465	583	2,780
1986	44	20	444	1,015	3,549
1987	45	14	437	1,689	6,263
1988	50	13	430	1,181	5,484

Source: Hawaii State Department of Land and Natural Resources, Aquaculture Development Program, records, May 25, 1989.

Table 573.-- AQUACULTURE OPERATIONS, ACREAGE, PRODUCTION, AND VALUE, BY COUNTIES: 1988

Subject	State total	Hawaii	Maui	Honolulu	Kauai
Number of operations ...	44	13	3	24	4
Prawn producers	12	1	-	9	2
Acreage (Dec. 31)	477	63	7	403	4
Production (1,000 lb.)..	1,169.7	74.6	(NA)	1,095.1	(NA)
Shellfish	702.7	(NA)	(NA)	702.7	(NA)
Finfish	210.9	15.5	(NA)	195.4	(NA)
Algae	256.1	59.1	(NA)	197.0	(NA)
Other 1/	...	...	(NA)	...	(NA)
Value ($1,000)	5,559.8	751.1	(NA)	4,808.7	(NA)
Shellfish	3,476.9	(NA)	(NA)	3,476.9	(NA)
Finfish	623.7	65.7	(NA)	556.0	(NA)
Algae	925.4	435.4	(NA)	490.0	(NA)
Other 1/	533.8	250.0	(NA)	283.8	(NA)

NA Not available.

1/ Items not sold by weight: postlarvae, brine shrimp, koi, tropical fish, and aquarium plants.

Source: Hawaii State Department of Land and Natural Resources, Aquaculture Development Program, July 27, 1989.

Section 20

FORESTS, FISHERIES, AND MINING

This section presents data on forests and forest products, commercial fishing, and mining and mineral products.

The most recent available statistics show 1.2 million acres of forest and water reserve and 948,000 acres of commercial timberland in the State, most of it on the Big Island. Over 45,000 acres had been planted in eucalyptus and other species of trees by mid-1988. Recent surveys of vegetation on three islands show ohia lehua to be the most common type of tree on Oahu and Kauai (with acreages of 38,000 and 109,000, respectively) and kiawe the leading type (at 33,000 acres) on Molokai. Forest and brushland fires burned 54 square miles in fiscal 1988.

The commercial fish catch in fiscal year 1988 amounted to 11.1 million pounds, with a value of $21 million to primary producers. Ahi (yellowfin) and aku (skipjack) accounted for 43 percent of the total value. Other important species are spiny lobster, opakapaka, mahimahi, and ono. Commercial fishermen numbered 2,627. Among Marine Life Conservation Districts, those with the most fish per acre were Hanauma Bay (4,660 inshore), Honolua-Mokuleia Bays (4,556), and Kealakekua Bay (3,828).

The value of mineral production reached $78 million in 1988, almost all of it in cement ($34 million) and crushed stone ($41 million). The 1988 total was an all-time high.

Important sources of data on these subjects are the United States Census of Mineral Industries and reports and records of the U.S. Bureau of Mines and Hawaii State Department of Land and Natural Resources, Aquatic Resources Division and Forestry and Wildlife Division. Historical Statistics of Hawaii, Section 14, summarizes the data for earlier periods. Comparable Mainland statistics are reported in the Statistical Abstract of the United States: 1989, Sections 24 and 25.

Table 574.-- FOREST ACREAGE, BY ISLANDS: 1970-1988

Island	Conservation district forest land, June 30, 1988		Forest land, 1970		Planted forest, June 30, 1988	
	Forest reserve land 1/	Private forest land 2/	Commercial 3/	Noncommercial 4/	Planted in preceding year	Total standing
State total	840,540	327,845	947,800	1,038,600	705	45,390
Hawaii	585,000	106,745	569,400	583,100	666	16,789
Maui	93,320	53,180	67,500	172,300	22	11,682
Kahoolawe	-	-	-	15,800	-	-
Lanai	-	6,150	4,500	39,400	-	512
Molokai	44,290	-	34,000	44,100	-	3,205
Oahu	29,810	87,920	126,500	78,800	2	7,039
Kauai	88,120	73,850	145,900	74,000	15	6,163
Niihau	-	-	-	31,100	-	-
Other islands ..	-	-	-	-	-	-

1/ State owned and privately owned lands under surrender agreement in forest reserve system.

2/ Private forest land within conservation district. The majority of these lands were previously in the forest reserve system.

3/ Includes federal military, state, miscellaneous corporate, and miscellaneous individual forest land.

4/ Unproductive or productive-reserved.

Source: Hawaii State Department of Land and Natural Resources, Division of Forestry and Wildlife, records.

Table 575.-- LAND AREA, BY VEGETATION TYPE AND FOREST RESERVE STATUS, FOR MOLOKAI, OAHU, AND KAUAI: 1986

[In acres. Excludes land in forest plantations]

Vegetation type	Molokai		Oahu		Kauai	
	Total	Forest reserve	Total	Forest reserve	Total	Forest reserve
Total, all types	163,214	44,288	370,002	34,931	347,088	88,127
Tree type:						
Ohia lehua	32,833	30,161	37,563	9,524	109,040	50,702
Koa	-	-	28,548	6,601	13,438	6,223
Kukui	4,773	4,009	2,775	617	7,634	2,029
Kiawe	33,215	-	17,354	241	10,358	116
Eucalyptus	1,527	954	1,131	411	3,157	1,288
Guava	5,918	4,200	10,287	1,421	12,143	3,099
Other trees	2,673	573	36,700	6,776	32,763	6,043
Shrub type	16,417	1,527	33,974	2,965	36,061	7,189
Forb type	191	-	11,338	2,718	4,120	2,043
Grassland	38,751	764	45,102	3,261	34,168	5,198
Cultivated land	18,325	-	55,770	-	64,741	387
No vegetation	3,819	-	822	-	6,709	3,810
Urban and other	4,772	2,100	88,638	396	12,756	-

Source: Hawaii State Department of Land and Natural Resources, Division of Forestry and Wildlife, multi-resource inventory reports.

Table 576.-- FOREST LAND, TIMBERLAND AREA, VOLUME OF SAWTIMBER, AND GROWING STOCK: JANUARY 1, 1987

Subject	1,000 acres	Subject	Amount
Total forest land	1,748	Sawtimber, net volume:	
		Total (mil. bd. ft.)	1,196
Timberland	700	Softwood (mil. bd. ft.)	18
Federal	-		
State or county	338	Growing stock, net volume:	
Private	362	Total (mil. cu. ft.)	280
		Softwood (mil. cu. ft.)	4

Source: U.S. Forest Service, cited in Statistical Abstract of the United States: 1989, p. 658.

Table 577.-- FOREST AND BRUSHLAND FIRES, BY COUNTIES: 1987 AND 1988

[Years ended June 30]

Subject	State total	Counties			
		Hawaii	Maui	Honolulu	Kauai
Number of fires:					
1987	109	58	38	11	2
1988	79	22	45	12	-
Acres burned:					
1987	6,713	4,356	449	1,905	3
1988	34,794	23,657	10,940	197	-

Source: Hawaii State Department of Land and Natural Resources, Division of Forestry and Wildlife, records.

Table 578.-- COMMERCIAL FISHING: 1970 TO 1988

[Years ended June 30]

Year	Number of commercial fishermen	Commercial fish catch 1/		
		Pounds caught	Pounds sold	Value to primary producers (dollars)
1970	1,264	9,786,726	9,588,319	3,585,166
1971	1,373	15,176,525	14,945,539	4,633,875
1972	1,544	15,577,669	15,246,519	5,536,521
1973	1,677	14,029,491	13,719,284	5,676,783
1974	2,085	13,997,774	13,660,574	6,234,924
1975	1,991	10,801,441	10,404,019	6,242,614
1976	2,283	11,893,141	11,332,659	7,508,395
1977	2,368	15,298,515	14,763,816	9,433,781
1978	2,574	13,672,061	13,139,142	11,115,964
1979	2,447	12,310,524	11,890,241	12,673,328
1980	2,525	10,418,964	9,946,065	10,497,456
1981	2,577	10,890,468	10,465,731	11,828,575
1982	2,525	9,178,789	8,824,348	10,754,276
1983	2,480	7,841,959	7,529,178	10,506,860
1984	2,940	9,819,800	9,344,200	13,556,184
1985	2,638	9,436,591	9,077,357	15,901,656
1986	2,880	9,503,193	9,081,881	18,557,533
1987	3,008	12,128,527	11,628,387	20,477,699
1988	2,627	11,052,502	10,592,287	20,541,580

1/ Represents the total catches of all licensed commercial fishers. Includes both sea and pond catches, but excludes coral harvests. Particularly for years since 1979, data may be incomplete due to unreported aku (skipjack tuna) and longline boat catches.

Source: Hawaii State Department of Land and Natural Resources, Division of Aquatic Resources, Commercial Fish Landings for Fiscal Year (annual), as revised, and records.

Table 579.-- COMMERCIAL FISH CATCH, BY SPECIES: 1988

[Year ended June 30, 1988]

Species 1/	Pounds caught	Pounds sold	Value (dollars)
Total catch	11,068,246	10,599,714	20,597,610
Sea catch, all species 2/	11,042,507	10,573,977	20,536,007
Aku (Skipjack)	3,877,692	3,789,006	3,947,685
Ahi (Yellowfin)	3,091,460	2,951,481	4,815,253
Ahi (Bigeye)	184,522	181,882	743,733
Striped marlin	206,243	191,409	246,206
Pacific blue marlin	487,140	444,892	365,449
Mahimahi	349,664	331,161	962,728
Ono	341,037	321,728	942,717
Hapuupuu	57,019	56,700	116,930
Opakapaka	355,315	343,540	1,215,539
Uku	180,444	178,426	477,223
Ehu	52,255	50,595	162,265
Onaga	170,279	167,904	775,450
Ulua	71,737	66,095	106,538
Akule	185,750	172,618	346,870
Lehi	36,444	35,249	108,346
Opelu	226,866	220,084	391,539
Lobster (Spiny)	233,986	220,897	2,301,571
Lobster (Slipper)	116,236	115,139	1,178,549
Pond catch, all species	25,739	25,737	61,603

1/ Shown separately for all species over 100,000 lb. or $100,000.

2/ Including species not shown separately.

Source: Hawaii State Department of Land and Natural Resources, Division of Aquatic Resources, Commercial Fish Landings for Fiscal Year--July 1987 through June 1988.

Table 580.-- COMMERCIAL FISH LANDINGS, BY ISLANDS: 1988

[Year ended June 30, 1988]

Island	Pounds caught	Pounds sold	Value (dollars)
State total	11,068,246	10,599,714	20,597,610
Hawaii	2,438,212	2,363,229	4,084,482
Maui	867,612	768,181	1,559,799
Lanai	26,425	25,065	40,549
Molokai	67,300	58,612	179,748
Oahu	6,387,734	6,219,368	12,574,582
Kauai	1,261,474	1,148,304	2,116,270
Niihau	19,489	16,955	42,180

Source: Hawaii State Department of Land and Natural Resources, Division of Aquatic Resources, Commercial Fish Landings for Fiscal Year--July 1987 through June 1988.

Table 581.-- HAWAIIAN FISHPONDS, BY CONDITION, ON HAWAII, MOLOKAI, AND OAHU: 1989

Island	Classification 1/					
	Total	I	II-A	II-B	III	IV
Hawaii	118	24	52	31	10	1
Molokai	74	2	9	44	17	2
Oahu	178	4	8	22	134	10

1/ I, walls in good to excellent condition; II-A, in fair to good condition; II-B, in poor to fair condition; III, no visible surface, but location known; IV, reported in literature but precise location unknown.

Source: DHM Planners, Inc., and Bishop Museum, Hawaiian Fishpond Study (June 1989), table III-2.

Table 582.-- FISH POPULATIONS AROUND SELECTED SHORELINE AREAS: YEAR ENDED JUNE 30, 1988

Location	Species	Fish per acre	Pounds per acre
Marine Life Conservation Districts:			
Hanauma Bay, Oahu: Inshore	70	4,660	2,400
Molokini Shoal, Maui	83	2,612	734
Honolua-Mokuleia Bays, Maui	69	4,556	1,114
Manele-Hulopoe Bays, Lanai	(NA)	3,465	1,337
Wailea Bay, Hawaii	69	963	290
Lapakahi, Hawaii	101	2,506	352
Kealakekua Bay, Hawaii	86	3,828	385
Artificial reefs:			
Maunalua Bay, Oahu: Cee Bee 24 ...	(NA)	(NA)	1,112
Mud scow	(NA)	(NA)	326
Transect	(NA)	(NA)	536
Waianae, Oahu	(NA)	(NA)	152
Shoreline Fisheries Management Areas:			
Waikiki-Diamond Head, Oahu	73	(NA)	273
Puako Reef, Hawaii (near shore) ...	42	1,882	214
Kailua Bay, Hawaii	63	1,860	263
Other areas:			
Barbers Point, Oahu................	110	969	120
Wahikuli, Maui	(NA)	(NA)	11
Keawekapu, Maui	(NA)	(NA)	115
Hanalei Bay, Kauai	87	1,610	207
Poipu, Kauai	77	2,786	810
Salt Ponds, Kauai	43	2,195	527
Kipu Kai, Kauai	(NA)	(NA)	251

NA Not available.
Source follows next table.

Table 583.--MOST ABUNDANT AND HEAVIEST FISH SPECIES AT SPECIFIED LOCATIONS: YEAR ENDED JUNE 30, 1988

[Three leading species at each location, based on both individuals per acre and pounds per acre]

Location and species	Individuals per acre		Pounds per acre	
	Rank	Number	Rank	Number
Waikiki-Diamond Head Shoreline Fisheries Management Area:				
Acanthurus triostegus (manini)	1	168	2	25
Thalassoma duperrey (hinalea lauwili)	2	132	6	10
Stethojulis balteata (ohua)	3	122	(NA)	(NA)
Acanthurus nigrofuscus (maiii)	4	104	3	18
Naso unicornis (kala)	6	43	1	36
Hanauma Bay Marine Life Conservation District (inshore):				
Acanthurus triostegus (manini)	1	1,456	3	231
Abudefduf abdominalis (mamo)	2	624	8	114
Kuhlia sandvicensis (aholehole)	3	465	4	197
Neomyxus leuciscus (uouoa)	4	363	1	487
Kyphosus bigibbus (nenue)	7	134	2	404
Kealakekua Bay Marine Life Conservation District:				
Zebrasoma flavescens (pala)	1	862	1	66
Ctenochaetus strigosus (kole)	2	648	7	21
Chromis vanderbilti (damsel)	3	385	(NA)	(NA)
Melichthys niger (ele'ele)	4	317	2	47
Scarus sordidus (uhu)	10	84	3	45

NA Not available.

Source: Hawaii State Department of Land and Natural Resources, Division of Aquatic Resources, Statewide Marine Research and Surveys, Survey of Fish and Habitat, July 1, 1987 to June 30, 1988.

Table 584.-- MINERAL INDUSTRIES: 1958 TO 1987

[Excluding mines at manufactures]

Subject	1958	1963	1967	1972	1977	1982	1987
Number of establishments 1/......	20	44	12	15	7	12	9
With 20 employees or more	8	4	3	5	2	4	4
All employees:							
Number (1,000)	.4	.3	.2	.3	.1	.2	.2
Payroll (million dollars)	1.7	1.7	1.6	2.4	1.9	3.8	7.4
Production, development, and exploration workers:							
Number (1,000)	.4	.2	.2	.2	.1	.1	.2
Hours (millions)	.7	.6	.4	.4	.2	.2	.4
Wages (million dollars)	1.4	1.5	1.3	1.8	1.5	2.6	5.7
Value added in mining (million dollars)	4.6	4.9	5.0	9.0	8.1	9.7	23.5
Cost of supplies used, purchased machinery installed, etc. (million dollars)	2.0	2.1	2.3	4.1	2.9	5.9	10.4
Value of shipments and receipts (million dollars)	5.8	6.5	5.5	11.0	9.7	12.8	31.1
Capital expenditures (million dollars)	.7	.5	1.8	2.0	1.3	2.7	2.8

1/ After 1963, data for single-unit establishments without paid employees were excluded from the census of mineral industries. Eight of the 12 establishments reported, including all 4 with 20 employees or more, were in SIC 142, crushed and broken stone, including riprap.

Source: U.S. Bureau of the Census, *1982 Census of Mineral Industries, Geographic Area Series, Pacific States*, MIC82-A-9 (April 1985), tables 1 and 2a, and *1987 Census of Mineral Industries, United States*, MIC87-SUM-1(P) (September 1989), table 2.

Table 585.-- NONFUEL MINERAL PRODUCTION: 1986 TO 1988

[Production as measured by mine shipments, sales, or marketable production, including consumption by producers]

Minerals	1986 1/	1987 1/	1988 2/
QUANTITY (1,000 SHORT TONS)			
Total	(X)	(X)	(X)
Cement:			
Masonry	7	10	10
Portland	287	324	400
Gem stones	(NA)	(NA)	(NA)
Lime	3	3	3
Sand and gravel (construction)	605	*700	600
Stone (crushed)	*7,100	5,732	5,700
Other industrial minerals	(X)	(X)	(X)
VALUE ($1,000)			
Total	70,412	73,479	78,225
Cement:			
Masonry	1,078	1,559	1,600
Portland	24,253	26,550	32,800
Gem stones	25	25	125
Lime	(W)	(W)	(W)
Sand and gravel (construction)	2,666	*3,500	2,400
Stone (crushed)	*42,100	41,548	41,000
Other industrial minerals	290	297	300

* Estimated.

NA Not available.

W Withheld to avoid disclosing company proprietary data; value included with "other industrial minerals."

X Not applicable.

1/ Revised from Data Book 1988, table 611.

2/ Preliminary.

Source: U.S. Bureau of Mines, "The Mineral Industry of Hawaii," Mineral Industry Surveys (January 1989).

Section 21

CONSTRUCTION AND HOUSING

This section presents statistics on construction activity and costs, the size and composition of the housing inventory, occupancy of housing units and office buildings, home sales, and residential financing. Related series are included in Sections 6 (land use) and 14 (prices).

There were 24,000 building permits issued in 1988, with an estimated value of $1.8 billion. The total included $686 million for new private residential construction, $244 million for hotels, and $295 million for private nonresidential structures. The value of government construction contracts awarded was $650 million. Construction put in place, as indicated by the contracting tax base, totaled $2.0 billion in 1987 and $2.5 billion in 1988. The value of land transfers in fiscal 1989 was $10.4 billion. The June 1989 construction cost index for Honolulu (1982=100) was 139 for single-family residences and 132 for high-rise buildings.

The number of housing units in the State increased from 324,000 in 1979 to 393,000 in 1989. Owner occupied units numbered 133,000 in 1979 and 164,000 in 1989; the latter total included 31,000 on leased land. Condominium units, first authorized in 1961, numbered 98,000 by 1987. Cooperative units, first built in 1956, totaled 2,800 in 1987. Government-owned housing, mostly military and public, accounted for 27,000 units as of 1989. Housing has been in short supply throughout most of the past decade: on Oahu, the vacancy rate in May 1986, according to the Federal Home Loan Bank of Seattle, was only 2.3 percent. The median selling price of single-family homes on Oahu during 1988, based on Multiple Listing Service data, was $210,000; for condominium units it was $114,000. The median gross monthly rent for Oahu rose from $141 in 1970 to $413 in 1983, and the median value of owner occupied single-family units increased from $38,400 to $163,400.

The principal sources for these data are the 1980 U.S. Census of Housing, the 1983 American Housing Survey, postal vacancy surveys issued by the Federal Home Loan Bank of Seattle, various series compiled by State and County agencies (primarily the Hawaii Housing Authority, Hawaii State Department of Business and Economic Development, Department of Commerce and Consumer Affairs, Department of Taxation, and Bureau of Conveyances, and the four county building departments), the construction cost indexes prepared by the First Hawaiian Bank, and the Honolulu Board of Realtors reports on Multiple Listing Service activity. Many of these series are summarized in reports published by the Bank of Hawaii (particularly Construction in Hawaii, issued annually) and the First Hawaiian Bank. Persons interested in figures for earlier periods should consult Historical Statistics of Hawaii, Section 15. Mainland statistics appear in Section 26 of Statistical Abstract of the United States: 1989.

Table 586.-- NUMBER AND VALUE OF BUILDING PERMITS, BY COUNTIES: 1978 TO 1988

Year	State total	City and County of Honolulu	Hawaii County	Kauai County	Maui County
NUMBER ISSUED					
1978	25,807	17,758	3,938	1,470	2,641
1979	26,515	18,297	4,062	1,540	2,616
1980	22,771	15,729	3,732	1,210	2,040
1981	21,395	15,141	3,427	1,276	1,551
1982	16,974	11,743	2,581	1,214	1,436
1983	19,733	13,018	2,649	2,165	1,901
1984	20,582	14,404	2,834	1,437	1,907
1985	23,332	16,011	2,933	1,544	2,844
1986	21,461	14,237	2,717	1,486	3,021
1987	23,929	16,197	3,175	1,595	2,962
1988	24,032	14,956	3,597	1,904	3,575
ESTIMATED VALUE ($1,000)					
1978	756,757	421,692	81,965	59,858	193,242
1979	984,559	566,991	144,768	118,453	154,347
1980	1,278,911	745,565	146,395	133,261	253,690
1981	898,428	550,254	136,617	67,844	143,713
1982	714,938	493,139	75,715	55,380	90,704
1983	767,305	410,763	95,979	142,859	117,704
1984	710,661	473,943	102,805	74,076	59,837
1985	990,879	619,689	132,735	59,522	178,933
1986	1,161,489	674,057	231,997	101,315	154,120
1987	1,268,927	836,328	146,035	109,574	176,990
1988	1,788,983	926,901	181,929	220,245	459,909

Source: City and County of Honolulu Department of Buildings, Summary of Building Permits (annual); Hawaii, Kauai, and Maui County departments of public works, records.

Table 587.-- VALUE OF BUILDING PERMITS, BY TYPE, BY COUNTIES: 1988

[Thousands of dollars. Limited to private construction, including additions, alteration, and repairs]

Category	State total	City and County of Honolulu	Hawaii County	Kauai County	Maui County
Total	1,540,284	743,058	175,039	213,680	408,508
Residential	685,993	314,421	124,098	83,615	163,859
Hotel	244,200	-	-	75,890	168,310
Non-residential	294,658	187,219	30,853	29,044	47,542
Additions and alterations	315,432	241,418	20,087	25,131	28,796

Source: Calculated by Hawaii State Department of Business and Economic Development from county "Monthly Cooperative Report of Local Construction" submitted to F.W. Dodge Division, McGraw-Hill Information Systems Company.

Table 588.-- GENERAL EXCISE TAX BASE FOR CONTRACTING: 1978 TO 1988

[In thousands of dollars. Data are on a cash basis accounting]

Year 1/	Amount	Year 1/	Amount	Year 1/	Amount
1978 2/	1,060,898	1982 ..	1,294,871	1986 ..	1,808,024
1979 ..	1,325,460	1983 ..	1,353,405	1987 3/	2,003,056
1980 ..	1,569,658	1984 ..	1,242,929	1988 3/	2,487,571
1981 ..	1,613,764	1985 ..	1,367,733		

1/ Calendar year in which reported, including "prior years" reports. Income received in December is reported the following January, hence these annual totals generally refer to income received in the 12-month period ended November 30.

2/ Partly estimated.

3/ Data exclude tax base for unallocated collections, distributed for earlier years. The 1987 total has been revised.

Source: Hawaii State Department of Taxation, "General Excise and Use Tax Base" (annual tabular release).

Table 589.-- GOVERNMENT CONSTRUCTION CONTRACTS AWARDED, BY AWARDING AGENCY AND LOCATION OF CONSTRUCTION: 1984 TO 1988

[In thousands of dollars. By date of publication]

Awarding agency and location	1984	1985	1986	1987	1988
Total	411,753	248,499	425,146	372,164	650,225
Awarding agency:					
Federal agencies	129,969	74,841	101,943	107,874	170,506
State agencies	196,674	93,785	205,443	174,207	351,705
City and County of Honolulu	64,715	47,784	90,413	79,090	120,285
Other counties	20,394	32,090	27,346	10,994	7,729
Location of construction:					
City and County of Honolulu	315,510	177,650	313,444	293,358	493,865
County of Hawaii	22,981	17,872	61,041	32,261	41,057
County of Kauai	43,147	15,264	33,765	21,080	20,696
County of Maui	30,114	37,713	16,895	25,466	94,607

Source: Compiled by Hawaii State Department of Business and Economic Development from Trade Publishing Company, BID Service Weekly.

Table 590.-- SUMMARY STATISTICS FOR CONSTRUCTION INDUSTRIES AND SUBDIVIDERS AND DEVELOPERS: 1967 TO 1982

[Excludes establishments without payroll]

Subject	1967	1972	1977	1982
Number of establishments in business during year	1,220	1,570	1,732	1,861
Proprietors and working partners	718	590	530	396
All employees	17,171	25,012	20,792	18,665
Construction workers, average.......	14,430	20,163	15,784	13,953
Other employees, March	2,666	4,949	5,032	4,711
Payroll ($1,000,000)	133.6	282.6	323.4	409.7
All business receipts ($1,000,000) ...	543.3	1,085.5	1,435.2	1,853.3
Value added ($1,000,000)	230.3	477.5	636.2	855.2

Source: U.S. Bureau of the Census, 1982 Census of Construction Industries, Pacific States, CC82-A-9 (April 1985), Hawaii table 4.

Table 591.-- SUMMARY STATISTICS FOR CONSTRUCTION INDUSTRIES AND SUBDIVIDERS AND DEVELOPERS, BY INDUSTRY: 1977 AND 1982

[Includes establishments both with and without payroll]

SIC code	Industry	Number	Proprietors and working partners	All employees	All business receipts ($1,000)
	1977				
	Construction industries and subdividers and developers	3,170	2,020	20,792	1,508,865
15-17	Construction industries 1/	3,029	1,848	20,187	(D)
15	General building contractors and operative builders	843	459	7,944	779,765
16	Heavy construction, general contractors	114	50	2,319	(D)
17	Special trade contractors	2,072	1,340	9,924	469,029
6552	Subdividers and developers, n.e.c. 2/	145	172	607	(D)
	1982				
	Construction industries and subdividers and developers	4,259	2,799	18,665	2,032,087
15-17	Construction industries 1/	4,092	2,645	18,340	1,894,673
15	General building contractors and operative builders	1,020	564	6,290	944,585
16	Heavy construction, general contractors	133	67	1,768	179,221
17	Special trade contractors	2,939	2,014	10,282	770,867
6552	Subdividers and developers, n.e.c. 2/	162	154	323	137,412

D Withheld to avoid disclosing data for individual companies.

1/ For establishments without payroll, may also include data for construction establishments not classified to two-digit industry detail.

2/ For establishments without payroll, may also include data for an unknown number of cemetery subdividers and developers.

Source: U.S. Bureau of the Census, 1982 Census of Construction Industries, Pacific States, CC82-A-9 (April 1985), Hawaii table 1.

Table 592.-- PRIVATE RESIDENTIAL CONSTRUCTION AND DEMOLITION AUTHORIZED BY PERMITS, BY COUNTIES: 1984 TO 1988

Category and year authorized	State total	City and County of Honolulu	Other counties			
			Total	Hawaii	Kauai	Maui
New 1-family dwellings:						
1984	4,117	2,197	1,920	900	382	638
1985	4,663	2,313	2,350	979	387	984
1986	4,985	2,024	2,961	1,127	417	1,417
1987	5,813	2,684	3,129	1,391	543	1,195
1988	6,067	2,001	4,066	1,715	692	1,659
New duplex units:						
1984	146	112	34	28	4	2
1985	208	112	96	64	-	32
1986	166	112	54	18	2	34
1987	182	124	58	50	6	2
1988	205	172	33	28	5	-
New apartments:						
1984	1,134	942	192	153	35	4
1985	2,388	1,744	644	129	84	431
1986	2,570	2,076	494	22	-	472
1987	1,671	785	886	314	-	572
1988	2,802	1,377	1,425	446	21	958
Units demolished:						
1984	528	429	99	50	5	44
1985 1/	555	455	100	38	12	50
1986 2/	690	534	156	43	60	53
1987 3/	825	741	84	40	2	42
1988 4/	753	629	124	57	9	58

1/ Excludes 11 homes in Hilo destroyed by high winds, February 16, 1986.

2/ Excludes 14 structures destroyed by volcanic activity and 1 by high winds, all in Hawaii County.

3/ Excludes 18 units destroyed by volcanic activity in Hawaii County.

4/ Excludes 6 units destroyed by volcanic activity in Hawaii County.

Source: Compiled from County building departments by the Hawaii State Department of Business and Economic Development.

Table 593.-- ESTIMATED VALUE PER HOUSING UNIT, BY TYPE OF STRUCTURE, FOR BUILDING PERMITS ISSUED BY THE CITY AND COUNTY OF HONOLULU: 1983 TO 1988

[In dollars. Excludes building permits for additions, alterations and repair]

Type of structure	1983	1984	1985	1986	1987	1988
One-family	68,819	70,230	67,783	80,119	80,719	101,649
Two-family	62,808	53,230	58,337	59,184	64,490	69,465
Multi-family	50,552	37,892	46,089	47,789	42,507	81,169

Source: City and County of Honolulu Department of Building, "Summary of Building Permits" (annual tabular release).

Table 594.-- HONOLULU CONSTRUCTION COST INDEXES: 1982 TO 1989

[1982=100. Data are annual averages unless otherwise specified]

Year	Single-family residence			High-rise building		
	All components	Materials prices	Labor 1/	All components	Materials prices	Labor 1/
1982	100.0	100.0	100.0	100.0	100.0	100.0
1983	109.5	111.3	107.3	106.9	107.4	106.9
1984	114.3	113.1	115.8	110.9	108.0	114.5
1985	117.4	115.2	120.1	113.5	108.7	118.4
1986	121.5	119.1	124.4	116.8	110.8	122.6
1987	125.7	123.7	128.2	120.7	114.9	125.8
1988	132.8	133.2	132.2	126.1	121.6	130.1
1989 2/	139.0	139.0	139.0	132.1	125.8	137.6

1/ Wages and benefits.
2/ June.
Source: First Hawaiian Bank, Research Department, records.

Table 595.-- HOUSING UNITS CONVERTED FROM RENTAL UNITS TO CONDOMINUM UNITS: 1963 TO 1988

Subject	1963-1982	1983	1984	1985	1986	1987	1988
Projects	246	12	32	18	36	35	34
Housing units	10,774	396	607	117	151	398	99

Source: 1963-1980 compiled by Real Estate Research Center, College of Business Administration, University of Hawaii, from the records of the Hawaii Real Estate Commission; 1981 and later years from Hawaii State Department of Commerce and Consumer Affairs, Professional and Vocational Licensing Division, Real Estate Commission, records.

Table 596.-- CONDOMINIUM PROJECTS REGISTERED WITH THE STATE OF HAWAII: 1984 TO 1988

Subject	1984	1985	1986	1987	1988
Projects	76	69	87	94	104
Residential units	2,662	1,477	1,346	2,289	2,060
Business or commercial units 1/ .	149	269	405	153	133

1/ Includes units in agricultural condominium projects which can be used for residential or business/commercial purposes (110 in 1987, 50 in 1988).

Source: Hawaii State Department of Commerce and Consumer Affairs, Professional and Vocational Licensing Division, Real Estate Commission, records.

Table 597.-- TIME SHARE PROPERTIES AND UNITS, BY GEOGRAPHIC AREAS: OCTOBER 13, 1989

[Time sharing refers to the use, occupancy, or possession of accommodations among various persons for less than 60 days in any year, for any occupant]

Geographic area	Properties	Units
State total	62	2,208
Oahu	17	857
Waikiki	15	784
Rest of Oahu	2	73
Hawaii	7	120
Kauai	15	690
Maui	23	541

Source: State Department of Commerce and Consumer Affairs, Professional and Vocational Licensing Division, Time Sharing Office, records.

Table 598.-- ESTIMATED NUMBER OF HOMELESS PERSONS, BY TYPE, FOR THE CITY AND COUNTY OF HONOLULU, 1984, AND HAWAII, KAUAI, AND MAUI COUNTIES, 1987

Homeless type	State total	Honolulu	Hawaii	Kauai	Maui
All homeless persons ...	4,220	2,500	600	340	780
Street people	1,266	750	180	102	234
Temporarily sheltered	844	500	120	68	156
Runaways	211	125	30	17	39
Elderly	211	125	30	17	39
Abused spouses	422	250	60	34	78
Stranded tourists	633	375	90	51	117
Beach people	633	375	90	51	117

Source: Housing Finance and Development Corporation, State of Hawaii Comprehensive Homeless Assistance Plan, Stewart B. McKinney Homeless Assistance Act (Public Law 100-77), Title IV, Subtitle A, submitted to the U.S. Department of Housing and Urban Development, February 1, 1989, pp. 10-16.

Table 599.-- CONDOMINIUM AND COOPERATIVE HOUSING UNITS, BY COUNTIES: 1987

Type of housing unit	State total	Honolulu	Maui	Hawaii	Kauai
Condominium units 1/	98,111	74,325	14,100	5,629	4,057
Cooperative units	2,832	2,738	94	-	-

1/ Includes some nonresidential condominium units.
Source follows next table.

Table 600.-- CONDOMINIUM HOUSING UNITS, TOTAL AND OWNER OCCUPIED, BY LAND OWNERSHIP, BY COUNTIES: 1987

[Includes some nonresidential condominium units]

Ownership of land and condominium unit	State total	Honolulu	Maui	Hawaii	Kauai
All condo units	98,111	74,325	14,100	5,629	4,057
On fee simple land	34,856	22,988	6,462	3,314	2,092
On leased land	59,395	49,825	6,120	1,803	1,647
Other categories 1/	3,860	1,512	1,518	512	318
Owner occupied condo units	26,424	25,203	753	369	99
On fee simple land	9,690	8,912	475	251	52
On leased land	16,734	16,291	278	118	47

1/ Such as fee and leasehold condominium units sold on agreement of sale.
Source: Legislative Reference Bureau, Ownership Patterns of Land Beneath Hawaii's Condominium and Cooperative Housing Projects (Report No. 6, 1987), pp. 8, 10-12, and 27.

Table 601.-- TENURE AND CONTROL OF HOUSING UNITS: 1970 TO 1989

[Data include condominium units occupied or intended for occupancy by nonresidents]

Year	All housing units 1/	Owner occupied units 2/		Renter occupied and vacant units		
		Land owned	Land leased	Private 3/	Federal 4/	State and County 4/
1970 ..	216,774	68,422	20,802	106,821	14,439	6,290
1971 ..	228,749	72,086	21,732	113,531	15,089	6,311
1972 ..	238,770	75,939	24,565	117,111	14,959	6,196
1973 ..	250,742	78,878	26,776	123,934	15,071	6,083
1974 ..	266,828	82,494	30,333	131,368	16,373	6,260
1975 ..	284,120	85,264	30,543	145,276	16,386	6,651
1976 ..	298,339	88,284	33,730	152,578	17,225	6,522
1977 ..	306,989	89,980	34,549	158,223	17,493	6,744
1978 ..	315,513	92,989	35,869	161,728	18,653	6,274
1979 ..	324,261	96,273	36,540	165,045	19,022	7,381
1980 ..	334,235	100,478	36,986	170,963	19,437	6,371
1981 ..	342,873	104,677	37,413	174,753	19,427	6,603
1982 ..	348,980	106,147	37,372	179,579	19,392	6,490
1983 ..	353,414	108,761	35,586	183,249	19,304	6,514
1984 ..	359,107	111,767	35,545	185,657	19,294	6,844
1985 ..	364,436	114,548	35,681	187,905	19,280	7,022
1986 ..	370,548	117,090	35,811	191,475	19,264	6,908
1987 ..	377,898	121,019	35,959	194,582	19,265	7,073
1988 ..	385,290	126,563	33,579	198,707	19,394	7,047
1989 ..	393,354	132,691	30,996	202,959	19,421	7,287

1/ As of April 1.

2/ As indicated by the number of taxpayers claiming home exemptions. The number of owner occupied housing units reported by the U.S. Census of Housing is somewhat higher than the corresponding number based on taxpayer home exemptions, chiefly because of differences in definitions. Data for 1977 and later years refer to January 1; data for 1970-1976, to July 1.

3/ Calculated as a residual after accounting for the known components, some of which pertain to dates other than April 1, and thus not attributable to any specific date.

4/ As of April 1. Data include housing units leased from private owners.

Source: Hawaii State Department of Business and Economic Development, Housing Unit Estimates for Hawaii, 1970-1989 (Statistical Report 213, October 1989), table 1.

Table 602.-- HOUSING UNITS STANDING, BY COUNTIES: ANNUALLY, 1970 TO 1989

[As of April 1. Data include condominium units occupied or intended for occupancy by nonresidents]

Year	State total	City and County of Honolulu	Other counties			
			Total	Hawaii	Kauai	Maui
1970 ..	216,774	174,742	42,032	18,972	9,021	14,039
1971 ..	228,749	184,101	44,648	20,061	9,298	15,289
1972 ..	238,770	190,973	47,797	21,648	9,555	16,594
1973 ..	250,742	198,970	51,772	23,578	10,092	18,102
1974 ..	266,828	210,940	55,888	25,282	10,700	19,906
1975 ..	284,120	223,647	60,473	26,694	11,347	22,432
1976 ..	298,339	232,669	65,670	28,131	11,934	25,605
1977 ..	306,989	237,571	69,418	29,453	12,433	27,532
1978 ..	315,513	243,103	72,410	30,579	12,841	28,990
1979 ..	324,261	247,465	76,796	32,283	13,610	30,903
1980 ..	334,235	252,038	82,197	34,215	14,828	33,154
1981 ..	342,873	254,969	87,904	36,180	16,314	35,410
1982 ..	348,980	256,967	92,013	37,738	17,081	37,194
1983 ..	353,414	259,574	93,840	38,702	16,937	38,201
1984 ..	359,107	262,902	96,205	39,762	17,539	38,904
1985 ..	364,436	266,127	98,309	40,820	17,979	39,510
1986 ..	370,548	269,390	101,158	41,944	18,446	40,768
1987 ..	377,898	273,054	104,844	43,135	18,929	42,780
1988 ..	385,290	276,509	108,781	44,700	19,476	44,605
1989 ..	393,354	279,166	114,188	47,035	20,173	46,980

Source: Hawaii State Department of Business and Economic Development, *Housing Unit Estimates for Hawaii, 1970-1989* (Statistical Report 213, October 1989), table 2.

Table 603.-- TENURE AND CONTROL OF HOUSING, BY COUNTIES: 1987 TO 1989

[As of April 1. Condominium units occupied or intended for occupancy by nonresidents are included in these estimates]

County	All housing units	Owner occupied units 1/		Renter occupied and vacant units		
		Land owned	Land leased	Private	Federal	State and County
1987						
State total ..	377,898	121,019	35,959	194,582	19,265	7,073
City & Co. of Hon.	273,054	82,728	33,656	132,213	19,135	5,322
County of Hawaii ..	43,135	18,704	1,241	22,174	50	966
County of Kauai ...	18,929	7,002	273	11,260	65	329
County of Maui	42,780	12,585	789	28,935	15	456
1988						
State total ..	385,290	126,563	33,579	198,707	19,394	7,047
City & Co. of Hon.	276,509	87,096	31,180	133,664	19,264	5,305
County of Hawaii ..	44,700	19,187	1,244	23,255	50	964
County of Kauai ...	19,476	7,237	305	11,541	66	327
County of Maui	44,605	13,043	850	30,247	14	451
1989						
State total ..	393,354	132,691	30,996	202,959	19,421	7,287
City & Co. of Hon.	279,166	91,632	28,512	134,431	19,299	5,292
County of Hawaii ..	47,035	19,998	1,281	24,506	45	1,205
County of Kauai ...	20,173	7,435	330	12,020	63	325
County of Maui 4/ .	46,980	13,626	873	32,002	14	465

1/ As indicated by the number of taxpayers claiming home exemptions, as of January 1.

Source: Hawaii State Department of Business and Economic Development, Housing Unit Estimates for Hawaii, 1970-1989 (Statistical Report 213, October 1989), table 4.

Table 604.-- RESIDENT AND NONRESIDENT HOUSING UNITS, BY COUNTIES: 1977 TO 1989

Category and year	State total	City and County of Honolulu	Other counties			
			Total	Hawaii	Kauai	Maui
RESIDENT 1/						
1977	301,904	237,059	64,845	29,123	11,843	23,879
1978	308,444	241,573	66,871	30,008	12,062	24,801
1979	315,728	245,101	70,627	31,548	12,623	26,456
1980	322,598	247,152	75,446	33,594	13,395	28,457
1981	328,679	249,330	79,349	34,921	14,458	29,970
1982	334,580	251,280	83,300	36,254	15,402	31,644
1983	340,001	254,827	85,174	36,933	15,931	32,310
1984	341,505	256,015	85,490	37,860	15,941	31,689
1985	342,632	257,111	85,521	38,541	15,903	31,077
1986	347,549	259,552	87,997	39,892	15,872	32,233
1987	356,002	263,818	92,184	41,033	16,298	34,853
1988	364,170	268,874	95,296	42,346	16,621	36,329
1989	374,214	273,247	100,967	45,017	17,139	38,811
NONRESIDENT 2/						
1977	5,085	512	4,573	330	590	3,653
1978	7,069	1,530	5,539	571	779	4,189
1979	8,533	2,364	6,169	735	987	4,447
1980	11,637	4,886	6,751	621	1,433	4,697
1981	14,194	5,639	8,555	1,259	1,856	5,440
1982	14,400	5,687	8,713	1,484	1,679	5,550
1983	13,413	4,747	8,666	1,769	1,006	5,891
1984	17,602	6,887	10,715	1,902	1,598	7,215
1985	21,804	9,016	12,788	2,279	2,076	8,433
1986	22,999	9,838	13,161	2,052	2,574	8,535
1987	21,896	9,236	12,660	2,102	2,631	7,927
1988	21,120	7,635	13,485	2,354	2,855	8,276
1989	19,140	5,919	13,221	2,018	3,034	8,169

1/ Estimated as of April 1. Includes all housing units other than condominium units in rental pools and intended for transient occupancy.

2/ Condominium units in rental pools and intended for transient occupancy, based on February survey data from the Hawaii Visitors Bureau.

Source: Hawaii State Department of Business and Economic Development, Housing Unit Estimates for Hawaii, 1970-1989 (Statistical Report 213, October 1989), table 3, as revised.

Table 605.-- CHARACTERISTICS OF THE HOUSING INVENTORY, FOR OAHU: 1970, 1976, 1979, AND 1983

[Oahu was dropped from this survey after 1983]

Subject	1983	1979	1976	1970
All housing units	262,900	248,100	219,600	174,200
TENURE AND VACANCY STATUS				
All year-round housing units	262,800	247,900	219,300	174,100
Occupied	245,800	231,000	200,400	164,800
Owner occupied	120,600	117,200	96,100	74,200
Percent	49.0	50.7	47.9	45.0
Cooperatives and condominiums	21,500	20,700	13,900	(NA)
Renter occupied	125,200	113,800	104,300	90,600
Vacant year-round 1/	17,000	16,900	18,900	9,300
For sale only	1,200	900	5,100	1,100
Homeowner vacancy rate	0.9	0.8	5.0	1.5
For rent	6,200	7,300	6,600	4,500
Rental vacancy rate	4.7	6.0	6.0	4.7
Other vacant 1/	9,500	8,800	7,200	3,700
STRUCTURAL CHARACTERISTICS				
Units in structure: percent 1, detached	47.5	50.9	52.5	56.7
Year built: percent 1939 or earlier	9.8	11.1	12.6	15.7
Plumbing facilities: percent lacking some or all	0.8	1.5	1.6	3.0
Bathrooms: percent 2 or more	34.7	34.4	32.3	26.4
Kitchen facilities: percent incomplete or shared	2.1	2.1	2.7	2.9
Rooms: median	4.7	4.7	4.7	4.6
Bedrooms: percent 3 or more	50.4	51.8	53.5	50.9
Air conditioning: percent none	82.0	81.3	81.8	86.7
Basement: percent none	89.3	91.4	92.1	(NA)
Public sewer: percent not linked	8.6	8.4	11.2	14.4
OCCUPANCY CHARACTERISTICS				
Persons per occupied unit	3.08	3.18	3.30	3.60
Percent 1.01 or more persons per room:				
Owner occupied	5.6	6.4	7.5	15.5
Renter occupied	10.9	11.2	12.1	22.0
Percent moved into unit past 12 months:				
Owner occupied	5.1	9.2	8.6	(NA)
Renter occupied	30.4	34.5	39.8	(NA)

Continued on next page.

Table 605.-- CHARACTERISTICS OF THE HOUSING INVENTORY, FOR OAHU: 1970, 1976, 1979 AND 1983 -- Con.

Subject	1983	1979	1976	1970
FINANCIAL CHARACTERISTICS				
Median income of families and primary individuals:				
Owner occupied	$38,000	$28,900	$23,600	$14,900
Renter occupied	$16,000	$12,800	$11,000	$8,000
Owner occupied 1-unit structures:				
Median value	$163,400	$125,600	$79,600	$38,400
Median value-income ratio	4.1	4.2	3.1	2.6
Median selected monthly housing costs --				
Units with a mortgage	$617	$474	$381	(NA)
Units with no mortgage	$157	$102	$81	(NA)
Renter occupied:				
Median gross rent	$413	$278	$234	$141
Nonsubsidized units	$425	$288	$241	(NA)
Gross rent as percent of income	31	26	26	22
Nonsubsidized	31	26	27	(NA)
Median contract rent	$372	$254	$216	$132

NA Not available.

1/ Includes units rented or sold but not occupied, units held for occasional use, and units occupied entirely by persons with usual place of residence elsewhere.

Source: U.S. Bureau of the Census, Annual Housing Survey: 1983, Honolulu, Hawaii, SMSA (Current Housing Reports, H-170-83-48, June 1985), Part A, tables A-1 and A-2; Annual Housing Survey: 1979, Honolulu, Hawaii, SMSA (Current Housing Reports, H-170-79-48, August 1983), Part A, tables A-1 and A-2.

Table 606.-- HOUSING CHARACTERISTICS, BY COUNTIES: 1980

Subject	State total 1/	Honolulu	Hawaii	Kauai	Maui
Persons in occupied units	925,092	725,865	90,436	38,679	70,008
Per occupied unit	3.15	3.15	3.09	3.22	3.11
Total housing units	334,235	252,038	34,215	14,828	33,033
Year-round housing units:					
Number	332,213	250,866	33,954	14,544	32,728
Median rooms	4.4	4.3	4.7	4.6	3.9
One unit at address (percent)	59.5	56.6	76.1	81.1	54.9
Lacking complete plumbing for exclusive use (percent)	2.3	1.5	7.0	4.8	2.9
Occupied housing units:					
Number	294,052	230,214	29,237	12,020	22,510
With 1.01 or more persons per room (percent)	15.3	15.5	13.0	15.2	16.4
Owner-occupied units:					
Number	151,954	114,831	17,731	6,429	12,963
Percent of occupied units	51.7	49.9	60.6	53.5	57.6
Median value 2/ ($1,000)	118.1	129.5	71.2	89.7	112.1
Renter-occupied units:					
Number	142,098	115,383	11,506	5,591	9,547
Median contract rent 3/ (dollars)	271	276	220	176	306
Vacant units, total 4/	38,161	20,652	4,717	2,524	10,218
For sale only	2,153	1,321	455	98	278
Homeowner vacancy rate	1.4	1.1	2.5	1.5	2.1
For rent	16,289	9,002	1,883	1,490	3,913
Rental vacancy rate	10.3	7.2	14.1	21.0	29.1
Rented or sold, awaiting occupancy	4,518	2,415	835	321	946
Held for occasional use	4,409	2,311	853	318	906
Other vacant	10,792	5,603	691	297	4,175
Condominium units, total	71,708	56,390	3,072	1,853	10,393
Owner-occupied	24,730	23,474	298	86	872
Renter-occupied	22,053	19,812	726	154	1,361
Vacant 4/	24,925	13,104	2,048	1,613	8,160

Footnotes and source on next page.

Table 606.-- HOUSING CHARACTERISTICS, BY COUNTIES: 1980 -- Con.

1/ Includes Kalawao County (121 housing units), not shown separately.

2/ Estimated market value of property (house and lot), for one-family houses on less than 10 acres. The median value of owner-occupied condominium units was $98,600.

3/ Excluding no cash rent.

4/ Units temporarily occupied, or intended for occupancy, entirely by persons who have a usual residence elsewhere are classified as vacant. Shared ownership or time-sharing condominiums are classified as "vacant, held for occasional use."

Source: U.S. Bureau of the Census, 1980 Census of Housing, General Housing Characteristics, Hawaii, HC80-1-A13 (July 1982), tables 1, 5, 7, 46, and 48.

Table 607.-- HAWAII HOUSING AUTHORITY OPERATIONS: 1986 TO 1988

Subject	1986	1987	1988 1/
Total units owned by HHA, June 30	5,773	5,930	2/ 5,723
Occupied	5,702	5,870	5,675
Population in units, June 30	18,147	17,648	17,083
Per occupied unit	3.2	3.0	3.0
Total assets, June 30 (million dollars)	754	718	151
Operating revenues of HHA, fiscal year: 3/			
Gross ($1,000)	12,706	12,734	13,254
Net ($1,000)	948	870	5,567
Operating revenues per unit per month, fiscal year (dollars) 3/	206.68	183.41	200.03
Rent charged per unit per month, fiscal year (dollars) 3/	182.50	162.81	186.58

1/ Some functions of the Hawaii Housing Authority were transferred to the Housing Finance and Development Corporation by SLH 1987, Act 337, effective July 1, 1987. The 1988 data presented in this table accordingly exclude HFDC units and assets.

2/ Federal low-rent, 5,213; State-subsidized, 510.

3/ Federal projects only; revenue amounts include Federal subsidies.

Source: Hawaii Housing Authority, records.

Table 608.-- HOUSING VACANCY SURVEYS OF OAHU: 1977 TO 1989

[Sponsored by the Federal Home Loan Bank of Seattle and conducted by U.S. mail carriers. Data for 1977-1981 have been adjusted to include newly completed but vacant units, omitted from base in earlier reports. No survey was published for 1984, 1985, 1987, and 1988]

Year and month	Total units	Vacant units				Units under con-struction
		Used and new		Used	New	
		Number	Percent			
1977: April 1/ ...	215,923	5,472	2.5	3,399	2,073	2,228
1978: March	226,103	5,178	2.3	3,312	1,866	4,820
1979: May	233,631	4,081	1.7	2,584	1,497	4,754
1980: March	238,028	5,104	2.1	3,039	2,065	3,980
1981: March	240,354	5,235	2.2	3,306	1,929	2,400
1982: March	244,077	4,130	1.7	2,665	1,465	1,087
1983: March	241,355	3,253	1.3	2,558	695	2,002
1986: May	250,500	5,750	2.3	4,593	1,157	877
1989: Apr.-May ...	257,050	3,730	1.5	3,414	316	3,027
TYPE OF UNIT: 1989						
Single-family units:						
Detached	125,051	1,034	0.8	906	128	1,573
Attached	22,716	356	1.6	308	48	538
Multi-family units	108,934	2,340	2.1	2,200	140	916
Mobile homes	349	-	0	-	...	...

1/ Dated March 1977 in the original report but April 1977 thereafter. For survey data for 1955-1976, see Historical Statistics of Hawaii, p. 397.

Source: Federal Home Loan Bank of Seattle, Honolulu Housing Vacancy Survey (annual), as adjusted to 1982-1989 definitions.

Table 609.-- VACANCY RATES FOR HOUSING ON OAHU AND THE NEIGHBOR ISLANDS: ANNUAL AVERAGES, 1970 TO 1988

[Based on housing units sampled for the Hawaii Health Surveillance Program survey. Units occupied by households temporarily absent were classified as occupied. The base excludes units occupied by transients]

Year	Units sampled			Percent vacant		
	State total	Oahu	Other islands	State average	Oahu	Other islands
1970 1/ ..	6,107	3,217	2,890	3.2	3.5	3.0
1971	5,370	2,493	2,877	3.6	3.2	5.1
1972	7,177	5,423	1,754	3.9	3.5	5.4
1973	6,735	5,456	1,279	3.1	2.6	5.0
1974	6,301	4,982	1,319	4.1	3.9	4.7
1975	6,632	5,360	1,272	5.6	5.2	6.9
1976 2/ ..	2,440	1,817	623	5.1	5.0	5.6
1977	6,899	4,526	2,373	5.9	6.1	5.1
1978	6,690	4,102	2,588	4.0	3.8	4.5
1979	5,936	3,519	2,417	3.2	2.8	4.4
1980	6,499	3,613	2,886	4.2	3.9	5.0
1981	6,174	3,195	2,979	4.8	4.4	5.8
1982	6,509	3,468	3,041	3.9	3.4	5.4
1983	6,139	3,147	2,992	3.8	3.1	5.8
1984 3/ ..	7,238	3,827	3,411	4.5	3.1	6.5
1985	7,485	3,872	3,613	5.0	4.7	5.7
1986	7,143	3,653	3,490	4.5	4.5	4.5
1987	7,441	3,738	3,703	4.8	4.3	6.1
1988	7,330	3,625	3,705	3.2	3.0	3.7

1/ Neighbor Island data based on last 9 months of 1970.
2/ Survey suspended during the first 6 months of 1976.
3/ Sample excluded housing units on military bases, included in other years.

Source: Hawaii State Department of Health, Hawaii Health Surveillance Program, records.

Table 610.-- PERSONS AND HOUSEHOLD HEADS, TOTAL AND CIVILIAN, CHANGING RESIDENCE IN PAST YEAR: 1976 TO 1986

[Excludes persons in institutions or barracks, in Kalawao, or on Niihau]

Year surveyed	Movers		Percent moving 1/	
	Total	Civilians 2/	Total	Civilians 2/
Persons 1 year old and over:				
1976	139,922	110,100	16.6	14.4
1977	153,357	112,867	18.3	15.3
1978	148,048	110,451	15.5	14.7
1979	139,025	103,705	16.2	13.3
1980	122,691	89,981	13.5	11.1
1981	137,717	105,767	15.0	12.8
1982	147,684	115,685	15.8	13.8
1983	135,496	96,824	14.1	11.4
1984 3/	140,509	101,730	14.4	11.6
1985	133,466	101,840	13.6	11.5
1986	130,796	99,990	13.1	11.1
Household heads:				
1976	49,456	39,738	18.8	16.5
1977	53,482	40,102	19.8	16.6
1978	48,875	36,968	18.9	16.0
1979	45,908	34,069	17.2	14.0
1980	40,654	29,370	14.3	11.5
1981	48,264	36,780	16.5	14.0
1982	51,817	39,870	17.2	14.7
1983	45,692	32,155	14.7	11.7
1984 3/	45,798	34,637	15.3	12.8
1985	42,923	31,778	14.4	11.8
1986	42,552	31,949	13.7	11.4

1/ Based on number reporting place of residence one year earlier.

2/ Based on military status when surveyed. Excludes members of the armed forces and their dependents.

3/ Persons in households living on military bases were omitted from the 1984 survey, although included in other years. For purposes of this table, such persons were assumed to have the same response distribution as members of military households living in the civilian community.

Source: Hawaii State Department of Health, Hawaii Health Surveillance Program, records.

Table 611.-- MOBILITY OF HOUSEHOLD HEADS, BY MILITARY STATUS AND COUNTIES: 1986

[Based on place of residence one year prior to survey date. Expanded from a sample of 5,661 households. Excludes persons in institutions or military barracks, in Kalawao, or on Niihau]

Island and military status of household head 1/	All household heads	Non-movers	Movers		Mobility not reported
			Number	Percent 2/	
State total	314,376	268,092	42,552	13.7	3,732
Military	31,576	20,316	10,512	34.1	748
Civilian	282,685	247,776	31,949	11.4	2,960
Status not reported	115	-	91	100.0	24
Oahu	236,947	201,019	32,777	14.0	3,151
Military	31,471	20,295	10,428	33.9	748
Civilian	205,385	180,724	22,258	11.0	2,403
Status not reported	91	-	91	100.0	-
Other islands	77,429	67,073	9,775	12.7	581
Hawaii	35,407	31,132	3,978	11.3	297
Kauai	14,834	13,091	1,728	11.7	15
Maui, Molokai, and Lanai	27,188	22,850	4,069	15.1	269

1/ Military status of household head at the time of the survey.

2/ Based on number reporting.

Source: Hawaii State Department of Health, Hawaii Health Surveillance Program, special tabulation.

Table 612.-- REAL ESTATE LICENSES, ACTIVE AND INACTIVE, BY TYPE OF LICENSE AND LOCATION: JUNE 1989

Type of license	Active	Inactive	Location	Active	Inactive
Total	14,707	7,132	Oahu	11,015	4,799
			Hawaii	1,352	720
Broker:			Maui	1,631	509
Individual ...	4,269	617	Kauai	612	280
Corporation or partnership	1,142	58	Molokai	52	12
			Lanai	2	2
Salesman	9,296	6,457	U.S. mainland ...	40	781
			Foreign	3	29

Source: Hawaii State Department of Commerce and Consumer Affairs, Professional and Vocational Licensing Division, September 27, 1989.

Table 613.-- BUILDING VACANCY RATES FOR COMPETITIVE OFFICE SPACE AND RETAIL SPACE, FOR HONOLULU, BY LOCATION: 1986 TO 1989

[Rates are percent of space reported vacant in survey]

Type of space and location	May 1986	Oct. 1986	May 1987	Oct. 1987	May 1988	Oct. 1988	May 1989
Competitive office:							
Downtown	11.4	10.7	7.0	5.7	5.0	5.6	6.1
Downtown to Waikiki	6.4	6.1	6.9	5.6	4.1	1.6	1.3
Waikiki	5.1	4.2	1.5	4.1	3.5	1.1	(NA)
Other	18.0	11.0	16.0	13.9	10.0	10.7	9.3
Retail:							
Downtown	6.5	4.4	6.0	5.7	4.3	4.6	(NA)
Downtown to Waikiki	13.0	7.5	7.0	8.1	7.8	10.3	(NA)
Waikiki	9.1	14.8	15.8	5.0	18.9	3.1	(NA)
Other	1.8	8.1	3.7	1.3	1.5	4.4	(NA)

NA Not available.

Source: Semi-annual survey by Hastings, Martin, Conboy, Braig & Associates, Ltd., cited in Building Owners & Managers Associaton, Hawaii, Newsletter, August 1989.

Table 614.-- OFFICE AND INDUSTRIAL SPACE AND RENTAL RATES, FOR OAHU: JANUARY 1989

Use and geographic area	Existing space (1,000 sq. ft.)	Vacant space		New construction (1,000 sq. ft.)		Rental rates (dollars per sq. ft. per mo.)	
		1,000 sq. ft.	Percent	1989	1988	Low	High
Office space 1/ ...	9,596	450	4.7	815	227	1.04	2.65
Downtown	4,683	209	4.5	275	115	1.50	2.65
King corridor ...	717	19	2.7	-	-	1.40	2.10
Kapiolani	1,116	16	1.4	390	42	1.50	2.50
Ala Moana	748	53	7.0	-	-	1.30	2.40
Waikiki	527	1	0.2	150	-	1.60	2.65
Airport	708	56	7.9	-	54	1.04	1.80
Industrial space 1/	29,714	405	1.4	1,171	1,070	0.40	1.05
Town	14,116	125	0.9	80	114	0.70	1.05
Airport	9,671	178	1.8	537	603	0.65	0.85
Leeward	3,825	74	2.0	137	12	0.40	0.75

1/ Includes areas not shown separately. See source for omitted areas.
Source: Grubb & Ellis, Hawaii Real Estate 1989, pp. 8 and 13.

Table 615.-- MEDIAN PURCHASE PRICE OF EXISTING ONE-FAMILY HOMES, FOR OAHU: 1981 TO 1987

[Based on surveys of conventional first mortgages]

Subject	1981	1982	1983	1984	1985	1986	1987
Amount ($1,000)	117.8	129.1	135.0	138.7	150.6	161.6	177.6
Rank 1/	2	2	2	2	3	2	4

1/ Among 32 metropolitan areas.
Source: Federal Home Loan Bank Board, 1987 Savings and Home Financing Source Book, table D5

Table 616.-- MULTIPLE LISTING SERVICE LISTINGS AND SALES, FOR OAHU: 1968 TO 1988

[Data include 1-family and condominium properties for all years and cooperative, commercial/industrial, business opportunities, income, and vacant properties through 1977 and from 1982 forward]

Year	Number listed	Number sold	Percent sold	Sales price (dollars) Mean	Sales price (dollars) Median
1968	2,375	1,133	47.7	42,546	...
1969	2,606	1,422	54.6	46,333	...
1970	3,415	1,693	49.6	44,755	...
1971	4,165	2,157	51.8	58,651	...
1972	6,022	4,555	75.6	60,810	...
1973	7,845	5,348	68.2	70,769	...
1974	10,933	4,821	44.1	70,918	...
1975	11,271	4,174	37.0	71,485	...
1976	10,627	4,311	40.6	75,483	...
1977	10,597	5,523	52.1	81,213	...
1978-1979 1/	9,926	5,714	57.6	82,076	...
1979-1980 1/	13,506	8,009	59.3	103,698	...
1980-1981 1/	14,090	5,553	39.4	124,897	...
1981 2/	13,799	3,735	27.1	144,227	...
1982	13,484	2,948	21.9	143,046	...
1983	13,556	4,868	35.9	142,914	...
1984 3/	13,258	4,732	35.7	141,888	...
1985	13,558	5,261	38.8	137,650	...
1986	16,047	6,467	40.3	151,985	...
1987	12,887	8,855	68.7	188,200	130,500
1988	14,548	9,886	68.0	201,000	146,800

1/ Year ended February 28 or 29.
2/ March through December.
3/ January 1 through December 3.
Source: Honolulu Board of Realtors, records.

Table 617.-- MULTIPLE LISTING SERVICE LISTINGS AND SALES, BY TYPE OF PROPERTY, FOR OAHU: 1986 TO 1988

Year and type of property	Number listed	Number sold	Percent sold	Sales price (dollars)	
				Mean	Median 1/
1986					
Total	16,047	6,467	40.3	151,985	...
Residential (1-family) ...	5,481	2,595	47.3	209,400	...
Condominium/cooperative ..	9,509	3,600	37.8	107,700	...
Vacant land	496	162	32.7	138,880	...
Income property	402	81	20.1	205,560	...
Commercial	159	29	18.2	434,880	...
1987					
Total	12,887	8,855	68.7	188,200	130,500
Single-family residential	4,329	3,111	71.9	282,500	185,000
Condominium/cooperative ..	7,686	5,433	70.7	126,100	104,500
Vacant land	412	200	48.5	291,300	160,000
Multi-family	106	40	37.7	460,400	350,000
Commercial/industrial	153	36	23.5	668,500	320,000
Business opportunities ...	201	35	17.4	55,800	25,000
1988					
Total	14,548	9,886	68.0	201,000	146,800
Single family residential	4,518	3,026	67.0	312,300	210,000
Condominium/cooperative ..	8,993	6,546	72.8	140,300	114,000
Vacant land	483	169	35.0	284,000	195,000
Multi-family	156	53	34.0	662,800	450,000
Commercial/industrial	140	54	38.6	611,300	200,000
Business opportunities ...	258	38	14.7	74,300	59,000

1/ Not available before 1987.
Source: Honolulu Board of Realtors, Multiple Listing Service records.

Table 618.-- MULTIPLE LISTING SERVICE UNITS SOLD, SINGLE-FAMILY RESIDENTIAL AND CONDOMINIUM, BY SELLING PRICE RANGE, FOR OAHU: 1988

Selling price range	Single-family residential	Condominium
All properties	3,026	6,546
Less than $50,000	3	200
$50,000, less than $75,000	8	1,057
$75,000, less than $100,000	63	1,447
$100,000, less than $125,000	104	1,095
$125,000, less than $150,000	336	956
$150,000, less than $175,000	449	587
$175,000, less than $200,000	443	361
$200,000, less than $225,000	246	181
$225,000, less than $250,000	284	133
$250,000, less than $275,000	168	132
$275,000, less than $300,000	173	88
$300,000, less than $400,000	306	147
$400,000, less than $500,000	164	53
$500,000, less than $600,000	68	22
$600,000, less than $700,000	42	23
$700,000, less than $800,000	25	14
$800,000, less than $900,000	35	19
$900,000, less than $1,000,000	23	13
$1,000,000 or more	86	18
Median value	$210,000	$114,000
Mean value	$312,300	$140,300

Source: Honolulu Board of Realtors, Multiple Listing Service records.

Table 619.-- CHARACTERISTICS OF SINGLE-FAMILY AND MULTI-FAMILY DEVELOPMENTS, FOR OAHU: 1983 TO 1988

Year	Single-family developments				Multi-family developments 1/		
	Average area (square feet)		Units sold	Average price (dollars)	Average living area (sq. ft.)	Units sold	Average price (dollars)
	House	Lot					
1983 ..	1,173	4,380	772	135,357	740	500	85,064
1984 ..	1,261	4,613	1,176	140,700	720	504	81,373
1985 ..	1,263	5,360	1,139	147,093	773	316	93,737
1986 ..	1,191	4,887	1,392	156,189	858	727	108,656
1987 ..	1,393	4,721	965	163,874	798	556	105,680
1988 ..	1,264	4,429	1,399	168,543	683	293	113,696

1/ Four stories or less.

Source: Bank of Hawaii, Construction in Hawaii, 1989 (1989), pp. 18 and 21.

Table 620.-- NUMBER OF DEEDS FILED AND RECORDED AND APPROXIMATE VALUE OF LAND CONVEYED: 1986 TO 1989

[Years ended June 30]

Subject	1986	1987	1988	1989
Number of deeds filed and recorded	28,518	58,598	53,204	61,674
Approximate value of land conveyed 1/ ($1,000)	3,893,347	7,245,393	7,958,152	10,365,238

1/ Data include leases, agreement of sales assignments, subleases, etc., as well as deeds.

Source: Hawaii State Department of Land and Natural Resources, Bureau of Conveyances, records.

Table 621.-- APPROXIMATE VALUE OF LAND TRANSFERS, BY COUNTIES: 1986 TO 1988

[In dollars. For calendar years. Totals include leases, agreement of sales assignments, subleases, etc., as well as deeds]

County	1986	1987	1988
State total	5,911,972,676	7,020,141,251	9,468,113,350
Honolulu	4,182,294,133	4,820,850,101	6,705,645,400
Maui	782,651,702	1,169,182,200	1,177,183,891
Hawaii	620,157,231	641,667,050	1,139,148,059
Kauai	326,869,610	388,441,900	446,136,000

Source: Hawaii State Department of Land and Natural Resources, Bureau of Conveyances, records.

Table 622.-- MORTGAGES, FORECLOSURES, AND AGREEMENTS OF SALE: 1983 TO 1988

Year	Mortgages recorded			Foreclosures 1/ ($1,000)	Mortgage assignments ($1,000)	Agreements of sale ($1,000)
	Number	Total value ($1,000)	Average value (dollars)			
1983 ...	29,060	3,528,800	121,431	24,443	(NA)	406,327
1984 ...	28,200	3,136,606	111,227	47,844	4,291	345,120
1985 ...	30,777	3,809,595	123,780	81,525	3,566	257,588
1986 ...	48,602	7,109,021	146,270	139,757	6,260	187,307
1987 ...	49,657	6,508,957	131,079	51,382	4,038	256,328
1988 ...	41,841	7,159,347	171,104	(NA)	*5,402	239,933

* 11 months.

NA Not available.

1/ Commercial and residential projects.

Source: Data from Title Guaranty of Hawaii and Hawaii State Bureau of Conveyances, cited in the Bank of Hawaii, Construction in Hawaii, 1989 (1989), p. 35.

Table 623.-- INTEREST RATES AND OTHER CHARACTERISTICS OF COVENTIONAL FIRST MORTGAGE LOANS ORIGINATED BY MAJOR TYPES OF LENDERS FOR THE PURCHASE OF SINGLE FAMILY HOMES, FOR OAHU: 1982 TO 1987

[For earlier years, 1973-1981, see source]

Year	Contract interest rate (percent)	Initial fees and charges (percent)	Effective interest rate (percent)	Term to maturity (years)	Purchase price ($1,000)	Loan-to-price ratio (percent)
1982	13.30	2.11	13.74	26.7	129.1	75.4
1983	12.32	1.89	12.70	27.6	135.0	75.0
1984	12.27	2.23	12.73	26.3	138.7	69.7
1985	11.57	2.09	11.96	26.8	150.6	69.9
1986	9.57	2.07	9.92	26.3	161.6	72.2
1987	9.22	1.93	9.54	27.7	177.6	75.8

Source: Federal Home Loan Bank Board, 1987 Savings & Home Financing Source Book, table D-5.

Table 624.-- FORECLOSURES: 1982 TO 1987

[For earlier years, 1974-1981, see source]

Subject	1982	1983	1984	1985	1986	1987
Number of foreclosures	101	204	440	261	156	154
Amount (mil. dol.)	35	69	96	33	22	25
Percent of total mortgages ...	1.3	2.5	3.8	1.3	0.9	0.9

Source: Federal Home Loan Bank Board, 1987 Savings & Home Financing Source Book, table B-9.

Table 625.-- SEATING CAPACITIES OF SELECTED STADIUMS, THEATERS, AND CHURCHES: 1987-1988

Facility type and name	Seating capacity
Stadiums and sports arenas:	
Aloha Stadium	50,000
Aiea High School Stadium	9,600
Neal Blaisdell Center Arena 1/	8,731
Leilehua High School Stadium	6,500
Waipahu High School Stadium	6,500
Brigham Young University-Hawaii Cannon Activity Center	6,000
University of Hawaii Baseball Stadium	4,312
Theaters and auditoriums:	
Neal Blaisdell Center Arena 2/	8,780
Neal Blaisdell Center Exhibition Hall 3/	5,000
Francis Wong Stadium (Hoolulu Park Complex Multi-purpose Pavilion) 2/	4,500
Lahaina Civic Center Convention Hall 2/	4,050
Andrews Amphitheater	4,000
Hilo Civic Auditorium 2/	3,550
Waikiki Shell 4/	3,257
Pearlridge West Theater complex (12 theaters)	2,160
Neal Blaisdell Center Concert Hall	2,158
Kahala Theaters (5 theaters)	1,460
Waikiki 3 Theater	1,262
Hilton Hawaiian Village Dome	1,120
Kauai War Memorial Concert Theater	1,100
Waikiki 1 and 2 Theaters (each)	982
Kapiolani Theater	760
Cinerama Theater	646
Kennedy Theater	600
Ruger Theater	507
Richard T. Mamiya Theatre	500
Churches:	
Kawaiahao Church	1,300
Central Union Church (Sanctuary)	800
St. Theresa Co-Cathedral	800
St. Andrew's Cathedral	750
St. Anthony	750
Cathedral of Our Lady of Peace	700
St. Augustine	700
Star of the Sea	700

Continued on next page.

Table 625.-- SEATING CAPACITIES OF SELECTED STADIUMS, THEATERS, AND CHURCHES: 1987-1988 -- Con.

1/ Capacity in boxing configuration.
2/ Capacity in concert configuration.
3/ Capacity in reception configuration.
4/ Includes 1,299 temporary seating.

Source: Compiled by the Hawaii State Department of Business and Economic Development from the Honolulu Fire Department, Fire Prevention Bureau; Honolulu Building Department; officials of the facilities listed.

Table 626.-- ELEVATORS, ESCALATORS, AND SIMILAR FACILITIES: DECEMBER 31, 1988

Facility	State total	Oahu	Hawaii		Maui	Molo-kai	Lanai	Kauai
			Hilo	Kona				
Total	4,213	3,455	121	133	352	1	2	147
Elevators	3,613	2,935	92	123	323	-	1	139
Under 9 stories:								
Hydro	822	557	33	42	105	-	1	84
Roped	1,266	948	50	81	147	-	-	40
9 to 18 stories	908	818	9	-	66	-	-	15
19 to 28 stories	367	362	-	-	5	-	-	-
29 to 38 stories	174	174	-	-	-	-	-	-
39 stories or more	76	76	-	-	-	-	-	-
Escalators and moving walks	282	269	6	-	1	-	-	2
Inclined lifts	9	2	3	1	1	-	1	1
Manlifts	11	10	-	1	-	-	-	-
Dumbwaiters	275	227	20	2	21	1	-	4
Chair lift	12	9	-	2	-	-	-	1
Private industrial elevator	8	-	-	3	5	-	-	-
Other facilities	3	1	-	1	1	-	-	-

Source: Hawaii State Department of Labor and Industrial Relations, Division of Occupational Safety and Health, Boiler and Elevator Inspection Bureau, records.

Table 627.-- TALLEST STRUCTURES, BY ISLANDS: JULY 1989

Island and structure	Location	Year completed	Height	
			Stories	Feet
BUILDINGS 1/				
Hawaii:				
Bayshore Towers	Hilo	1970	15	135
Maui:				
Kalana O Maui (County Bldg.)	Wailuku	1972	9	140
Royal Lahaina Hotel	Kaanapali	1970	12	132
Oahu:				
Ala Moana Hotel 2/	410 Atkinson Drive	1970	38	396
Ala Wai Sunset	445 Seaside Ave.	1979	44	350
Kauai:				
Westin Kauai Hotel	Lihue	1959	10	107
OTHER STRUCTURES				
Hawaii:				
Coast Guard Loran Station	Upolu Point	1958	...	625
Maui:				
KMVI Radio Tower	Wailuku	1947	...	455
Lanai:				
Storage tanks	Manele Harbor	...	...	50
Molokai:				
KAIM Radio Tower	Kalua Koi	1981	...	410
Oahu:				
VLF Antenna	Lualualei	1972	...	1,503
Kauai:				
Communication Engineers Tower	Mana	1964	...	400
Kure Atoll:				
Loran Transmitting Tower	Kure Atoll	1962	...	625

1/ Shown separately for the tallest in feet and also (if different) for the tallest in number of stories.

2/ Measured to top of elevator machine room; otherwise, 390 feet.

Source: Compiled by DBED from Hawaii County Dept. of Research and Development, Maui County Dept. of Public Works, City and County of Honolulu Building Dept., Kauai County Dept. of Public Works, and 14th Coast Guard District.

Section 22

MANUFACTURES

This section presents statistics on the manufacturing segment of the economy, including sugar processing and pineapple canning. Additional information on manufacturing workers appears in Sections 12 and 15.

The number of manufacturing establishments in Hawaii increased from 697 in 1967 to 1,020 in 1987. The value added by manufacture rose from $326 million in 1967 to $786 million in 1977 and $1,411 million in 1987. More than three-fourths of all manufacturing activity in the State in 1982 was on Oahu. Food processing--mostly sugar and pineapple--accounted for 49 percent of the value added by manufacture in 1986. In 1988, the general excise and use tax base for diversified manufacturing (that is, manufacturing exclusive of sugar processing and pineapple canning) was $629 million. There were two pineapple canneries and 11 sugar mills in Hawaii in 1988. The production of canned pineapple fruit and juices in 1981 (the most recent year available) was 18 million actual cases, well below the levels of earlier years. Sugar production in 1988 amounted to 928,000 short tons, the lowest total in 30 years. The value of sugar production (including commercial molasses) in 1988 was $324 million, compared with the record of $677 million set in 1974. Important manufactures other than food processing include apparel, printing and publishing, and stone, clay, and glass products.

Sources for data on this subject include the quinquennial United States Census of Manufactures, most recently conducted for 1987, the Annual Survey of Manufactures, publications of the Hawaii State Department of Agriculture and Department of Taxation, and the Hawaiian Sugar Planters' Association's annual report, *HSPA Sugar Manual*. *Historical Statistics of Hawaii*, Section 16, reviews the figures for earlier years. Statistics for the nation as a whole appear in Section 27 of the *Statistical Abstract of the United States: 1989*.

Table 628.-- STATISTICAL SUMMARY OF MANUFACTURES: 1963 TO 1982

Subject	1963	1967	1972	1977	1982
All establishments:					
Total	672	697	773	949	966
With 20 employees or more	203	215	238	231	237
All employees:					
Number (1,000)	25.1	25.4	24.8	25.0	23.6
Payroll (million dollars)	109.0	139.6	191.1	276.8	360.3
Production workers:					
Number (1,000)	18.7	19.0	17.7	17.4	16.0
Hours (millions)	33.2	35.9	33.1	31.3	29.9
Wages (million dollars) .	67.5	86.9	113.7	160.5	217.5
Value added by manufacture 1/ (million dollars)	261.1	326.2	410.0	785.5	1,119.6
Cost of materials 2/ (million dollars)	(NA)	399.6	548.3	1,176.1	2,357.5
Value of shipments 2/ (million dollars)	(NA)	723.4	955.6	1,974.0	3,443.0
New capital expenditures (million dollars)	15.4	26.0	46.7	44.4	89.4

NA Not available.

1/ Data for 1982 not directly comparable to data for earlier years; see source for discussion.

2/ Aggregate cost of materials and value of shipments include extensive duplication since products of some industries are used as materials by others.

Source: U.S. Bureau of the Census, 1986 Annual Survey of Manufactures, Geographic Area Statistics, M86(AS)-3 (July 1988), table 1, and 1977 Census of Manufactures, Hawaii, MC77-A-12 (October 1980), table 2a.

Table 629.-- STATISTICAL SUMMARY OF MANUFACTURES: 1983 TO 1987

Subject	1983	1984	1985	1986	1987
All establishments:					
Total	(NA)	(NA)	(NA)	(NA)	1,020
With 20 employees or more	(NA)	(NA)	(NA)	(NA)	223
All employees:					
Number (1,000)	22.6	22.5	23.0	23.1	22.1
Payroll (million dollars)	375.9	383.3	400.7	424.0	436.1
Production workers:					
Number (1,000)	14.9	15.6	15.8	15.7	15.3
Hours (millions)	29.0	29.3	28.0	29.0	29.0
Wages (million dollars) .	223.8	223.3	228.5	239.3	254.6
Value added by manufacture (million dollars)	1,045.9	1,046.4	1,195.3	1,173.9	1,411.0
Cost of materials 1/ (million dollars)	2,382.2	2,330.4	2,280.2	1,898.9	2,051.5
Value of shipments 1/ (million dollars)	3,414.5	3,409.6	3,477.3	3,086.4	3,457.0
New capital expenditures (million dollars)	60.6	69.4	76.1	47.3	100.2

NA Not available.

1/ Aggregate of cost of materials and value of shipments figures includes extensive duplication since products of some industries are used as materials by others.

Source: U.S. Bureau of the Census, 1986 Annual Survey of Manufactures, Geographic Area Statistics, M86(AS)-3 (July 1988), table 1; 1987 Census of Manufactures, United States, MC87-SUM-1(P) (September 1989), table 3.

Table 630.-- STATISTICAL SUMMARY OF MANUFACTURES, BY COUNTIES: 1982

Subject	State total	City and County of Honolulu	Hawaii County	Kauai County	Maui County
All establishments 1/ (number) ...	967	780	99	25	63
With 20 employees or more	237	200	18	7	12
All employees:					
Number (1,000)	23.6	17.9	2.4	0.7	2.6
Payroll (million dollars)	360.4	279.4	37.9	12.1	30.9
Production workers:					
Number (1,000)	16.0	11.9	1.9	0.5	1.7
Hours (millions)	29.9	21.6	3.9	1.0	3.4
Wages (million dollars)	217.5	158.3	29.0	8.3	21.8
Value added by manufacture (million dollars)	1,119.6	901.5	100.6	26.6	90.8
Cost of materials 2/ (million dollars)	2,357.5	2,078.5	130.1	58.3	90.7
Value of shipments 2/ (million dollars)	3,443.0	2,947.3	229.6	84.9	181.1
New capital expenditures (million dollars)	89.4	58.4	7.5	5.9	17.6

1/ Includes establishments with payroll at any time during the year.

2/ Aggregate cost of materials and value of shipments include extensive duplication since products of some industries are used as materials by others.

Source: U.S. Bureau of the Census, 1982 Census of Manufactures, Hawaii, MC82-A-12 (April 1985), table 4.

Table 631.-- MANUFACTURES, BY SELECTED INDUSTRY GROUP: 1986

[Includes operating manufacturing establishments and auxiliaries. Includes major groups with 150 employees or more]

SIC code	Major group	All employees		Production workers		
		Number (1,000)	Payroll (million dollars)	Number (1,000)	Hours (millions)	Wages (million dollars)
	All groups	23.1	424.0	15.7	29.0	239.3
20	Food and kindred products	9.5	179.9	6.6	12.7	104.1
23	Apparel and other textile products	4.2	43.1	3.3	6.6	33.1
24	Lumber and wood products	.4	5.5	.3	.5	4.0
25	Furniture and fixtures	.2	3.9	.2	.4	2.4
26	Paper and allied products	.3	6.5	.2	.4	4.1
27	Printing and publishing	(D)	(D)	(D)	(D)	(D)
28	Chemicals and allied products	.4	8.1	.2	.3	3.6
29	Petroleum and coal products	(D)	(D)	(D)	(D)	(D)
30	Rubber and miscellaneous plastics products	(S)	(S)	(S)	(S)	(S)
32	Stone, clay, and glass products	1.0	23.0	.7	1.3	16.4
34	Fabricated metal products	.6	11.8	.5	.8	8.8
35	Machinery, except electrical	.3	4.9	.2	.4	3.1
37	Transportation equipment	.4	7.8	.3	.5	5.7
39	Miscellaneous manufacturing industries	.6	6.4	.4	.6	3.6
--	Auxiliaries	.6	21.3	-	-	-

Continued on next page.

Table 631.-- MANUFACTURES, BY SELECTED INDUSTRY GROUP: 1986 - Con.

[Includes operating manufacturing establishments and auxiliaries. Includes major groups with 150 employees or more]

SIC code	Major group	Value added by manufacture (million dollars)	Cost of materials 1/ (million dollars)	Value of shipments 1/ (million dollars)	New capital expenditures (million dollars)	End-of-year inventories (million dollars)
	All groups	1,173.9	1,898.9	3,086.4	47.3	338.5
20	Food and kindred products	573.7	752.1	1,322.1	27.8	136.9
23	Apparel and other textile products	71.3	92.7	164.6	2.5	31.9
24	Lumber and wood products	10.9	13.5	24.8	.1	4.6
25	Furniture and fixtures	5.1	3.1	9.0	(D)	1.9
26	Paper and allied products	19.4	23.3	42.7	1.2	5.0
27	Printing and publishing	(D)	(D)	(D)	(D)	(D)
28	Chemicals and allied products	3.5	41.3	46.3	(D)	12.8
29	Petroleum and coal products	(D)	(D)	(D)	(D)	(D)
30	Rubber and miscellaneous plastics products	(S)	(S)	(S)	(D)	(S)
32	Stone, clay, and glass products	46.4	69.6	116.3	2.7	13.9
34	Fabricated metal products	19.7	62.5	84.9	(D)	14.8
35	Machinery, except electrical	8.6	4.7	13.9	.2	2.5
37	Transportation equipment	5.2	12.4	17.5	(D)	2.1
39	Miscellaneous manufacturing industries	16.0	19.6	34.1	.1	10.4
--	Auxiliaries	-	-	-	-	-

D Withheld to avoid disclosing data for individual companies.
S Withheld because estimate did not meet publication standards.
1/ Aggregate of cost of materials and value of shipments includes extensive duplication since products of some industries are used as materials by others.

Source: U.S. Bureau of the Census, 1986 Annual Survey of Manufactures, Geographic Area Statistics, M86(AS)-3 (July 1988), table 2.

Table 632.-- PLANT CAPACITY UTILIZATION RATES: FOURTH QUARTERS, 1982 TO 1987

[Data based on limited samples and subject to high sampling variability. Comparability of 1984 and later rates with earlier figures is further affected by the use of a new survey sample in that year. Considerable caution is thus urged in making any year-to-year comparisons, and particularly between 1983 and 1984]

Type of rate	Fourth quarter estimates					
	1982	1983	1984	1985	1986	1987
Preferred rate 1/	80	83	84	87	87	89
Practical rate 2/	72	73	81	83	78	85

1/ The preferred level of operations is defined as a level, normally between actual operations and practical capacity, which the manufacturer would prefer not to exceed due to costs or other considerations. In this table, the preferred utilization rate represents the ratio of actual to preferred level of operations.

2/ Practical capacity is broadly defined as the greatest output the plant could achieve within the framework of a realisic work pattern. The practical capacity utilization rate is the ratio of actual operations to the practical capacity level.

Source: U.S. Bureau of the Census, "Survey of Plant Capacity, 1982," Current Industrial Reports, MQ-C19(82)-1, November 1983, p. 19, and unpublished estimates for 1983-1986.

Table 633.-- MANUFACTURING SALES RECEIPTS: 1985 TO 1988

[Millions of dollars]

Category	1985	1986	1987	1988
Total manufacturing ...	2,235.5	1,960.5	2,138.5	2,227.5
Sugar processing	340.8	359.7	354.5	337.5
Pineapple canning	171.7	184.9	202.9	191.7
Petroleum	1,115.9	780.0	943.9	1,036.3
Diversified manufacturing ..	538.3	565.4	588.3	606.7

Source: Bank of Hawaii, 1989 Annual Economic Report, p. 43.

Table 634.-- GENERAL EXCISE TAX BASE FOR SUGAR PROCESSING, PINEAPPLE CANNING, AND MANUFACTURING: 1978 TO 1988

[In thousands of dollars. Data are on a cash basis accounting]

Year reported 1/	Total 2/	Sugar processing	Pineapple canning 2/	Manufacturing 3/
1978 4/ ...	917,163	291,000	131,665	494,498
1979	1,035,159	305,738	164,200	565,221
1980	1,349,149	527,379	195,766	626,004
1981	1,218,516	415,442	172,342	630,732
1982	1,033,845	317,880	185,367	530,598
1983	1,130,369	435,579	182,967	511,823
1984	1,132,078	414,211	198,266	519,601
1985	1,000,578	357,151	115,754	527,673
1986	937,840	336,334	32,974	568,532
1987	983,175	385,842	2,193	595,140
1988 5/ ...	797,275	165,350	2,622	629,303

1/ Calendar year in which reported, including "prior years" reports. Income received in December is reported the following January and hence these annual totals generally refer to an "income year" ended November 30.

2/ Decline after 1984 reflects in part the exemption of exported pineapple produced by two companies from the general excise tax, effective August 1, 1985 and April 30, 1986, when they were granted foreign trade subzone status.

3/ Excludes sugar processing and pineapple canning.

4/ Partly estimated.

5/ Data exclude tax base for unallocated collections, distributed for earlier years. Also, manufactured goods shipped out of State have been exempted from the general excise tax by Act 239, SLH 1987, effective January 1, 1988.

Source: Hawaii State Department of Taxation, "General Excise and Use Tax Base" (annual tabular release).

Table 635.-- MANUFACTURING CLIMATE: 1988

Factor	States ranked	Hawaii rank
Overall rank (among low manufacturing intensity States only)	21	13
State and local government fiscal policies	50	6
State-regulated employment costs	50	13
Labor costs	50	45
Availability and productivity of resources	50	24
Selected quality of life issues	50	15

Source: 10th Annual Grant Thornton Manufacturing Climates Study (June 1989), pp. 13 and 71.

Table 636.-- INDUSTRIAL PARKS AND AREAS, BY ISLANDS: 1985

Subject	State total	Hawaii	Maui	Oahu	Kauai	Other islands
Number:						
Developed	33	6	4	21	2	-
Proposed	12	2	2	7	1	-
Acres:						
Developed	3,066	618	195	2,207	46	-
Proposed	1,873	1,035	330	492	16	-

Source: Hawaii State Department of Planning and Economic Development, Industrial Parks and Areas in Hawaii 1985 (1985).

Table 637.-- PINEAPPLE COMPANIES AND CANNERIES AND SUGAR COMPANIES AND MILLS: 1940 TO 1988

Year	Pineapple (end of canning season)		Sugar (December 31)	
	Companies	Canneries	Companies 1/	Mills
1940	8	8	38	34
1945	7	7	36	32
1950	9	8	28	26
1955	10	8	28	26
1960	8	9	27	27
1965	6	6	25	27
1970	4	4	23	26
1975	3	3	16	17
1980	3	3	15	14
1985	3	2	14	12
1986	3	2	14	12
1987	3	2	13	11
1988	3	2	12	11
ISLANDS: 1988				
Hawaii	-	-	3	3
Maui	1	1	2	2
Oahu	2	1	2	2
Kauai	-	-	5	4

1/ Excludes cooperatives.

Source: Pineapple Growers Association of Hawaii, records; Hawaiian Sugar Planters' Association, Hawaiian Sugar Manual 1988, and records.

Table 638.-- SUGAR AND MOLASSES PRODUCTION: 1968 TO 1988

Year	Cane land (acres)		Cane used for sugar (short tons)	Sugar produced (short tons)		Molasses produced (short tons)
	Total area	Harvested area 1/		96° raw value	Equivalent refined	
1968 ...	242,476	113,525	11,279,920	1,232,182	1,151,597	368,050
1969 ...	242,216	113,232	10,839,272	1,182,414	1,105,060	340,330
1970 ...	238,997	113,816	10,457,377	1,162,071	1,086,000	322,480
1971 ...	232,278	115,810	10,685,019	1,229,976	1,149,510	330,227
1972 ...	229,611	108,456	9,929,068	1,118,883	1,045,708	307,543
1973 ...	226,580	108,189	9,645,452	1,128,529	1,054,723	301,500
1974 ...	224,227	95,826	9,082,684	1,040,742	972,677	293,380
1975 ...	221,426	105,125	9,485,299	1,107,199	1,034,788	301,335
1976 ...	221,551	99,926	9,172,649	1,050,457	981,757	275,352
1977 ...	220,729	96,770	8,994,388	1,033,739	966,132	284,349
1978 ...	220,697	99,355	9,263,190	1,028,933	961,641	310,238
1979 ...	218,773	100,610	9,632,135	1,059,737	990,430	325,843
1980 ...	217,718	97,358	9,214,136	1,023,232	956,313	315,088
1981 ...	216,099	97,573	8,831,477	1,047,541	979,032	311,719
1982 ...	204,749	89,261	8,807,998	982,913	918,630	287,190
1983 ...	194,258	92,808	8,926,358	1,044,204	975,913	303,254
1984 ...	188,396	89,541	8,453,721	1,061,814	992,371	314,202
1985 ...	187,858	83,029	7,916,459	1,012,249	946,048	271,645
1986 ...	184,181	83,583	8,379,463	1,042,452	974,276	290,422
1987 ...	180,966	79,498	8,012,899	979,209	915,169	283,250
1988 ...	177,693	78,715	7,602,414	928,195	867,491	274,375

1/ The average growth of a crop is 22 to 26 months. Only a portion of the total acreage in cane is harvested each year.

Source: Hawaiian Sugar Planters' Association, *HSPA Sugar Manual* (annual), and records.

Table 639.-- AVERAGE RAW SUGAR PRICE AND SUGAR INDUSTRY EMPLOYMENT AND EARNINGS: 1968 TO 1988

Year	Average raw sugar price 1/ (cents per lb.)	Hourly-rated employees		Industry-wide strikes (weeks)	Average daily earnings 2/ (dollars)	
		Average number 3/	Total man-days		Cash wages	Employee benefits
1968 ...	7.52	9,481	2,282,654	-	21.62	8.40
1969 ...	7.75	9,213	2,066,244	5	23.26	9.76
1970 ...	8.08	8,908	2,139,183	-	24.24	10.00
1971 ...	8.52	8,610	2,077,011	-	26.08	10.27
1972 ...	9.10	8,127	1,934,563	-	29.09	11.23
1973 ...	10.30	7,900	1,897,369	-	30.86	12.48
1974 ...	29.43	7,700	1,744,346	6	34.41	15.81
1975 ...	22.49	7,800	1,937,973	-	37.34	15.66
1976 ...	13.31	7,500	1,854,272	-	43.12	17.28
1977 ...	11.11	7,200	1,660,298	3	43.92	19.97
1978 ...	13.74	7,200	1,771,530	-	47.06	21.28
1979 ...	15.20	7,065	1,762,838	-	50.49	22.21
1980 ...	30.18	7,076	1,793,237	-	56.72	24.68
1981 ...	19.74	7,282	1,806,020	-	61.51	27.71
1982 ...	19.94	6,816	1,519,732	-	65.11	30.83
1983 ...	22.04	6,543	1,565,928	-	66.80	32.00
1984 ...	21.74	6,319	1,467,127	-	68.88	34.71
1985 ...	20.39	5,751	1,323,525	-	68.72	35.99
1986 ...	20.90	5,413	1,290,067	-	69.28	34.24
1987 ...	21.83	5,222	1,261,209	-	71.36	41.83
1988 ...	22.12	5,110	1,204,708	-	72.46	34.56

1/ Average New York raw sugar price computed over all the days of the year (Hawaiian basis). The New York spot price was suspended from November 2, 1977 to August 20, 1979; figures for that period are based on Clearing Association settlement prices. New York spot price "nearby futures" used beginning June 1985.

2/ For non-supervisory employees.

3/ Adults only.

Source: Hawaiian Sugar Planters' Association, HSPA Sugar Manual (annual), as revised and updated.

Table 640.-- VALUE OF SALES AND GOVERNMENT PAYMENTS FOR PINEAPPLE AND SUGAR PRODUCTION: 1970 TO 1988

[In millions of dollars. Calendar year data unless otherwise specified]

Year	Pineapple		Sugar		
			Value of production		Government sugar support payments
	Canned fruit and juices 1/	Fresh market sales 2/	Raw sugar 96°	Commercial molasses	
1970 ..	135.0	3.60	180.7	7.1	10.3
1971 ..	137.7	3.70	196.3	6.7	10.7
1972 ..	140.5	4.90	176.6	8.1	9.7
1973 ..	135.0	7.40	203.8	18.4	9.5
1974 ..	118.2	8.85	659.2	17.4	8.6
1975 ..	126.6	10.08	354.6	11.5	-
1976 ..	130.0	14.49	245.5	11.5	-
1977 ..	140.0	21.58	219.1	7.7	48.7
1978 ..	133.4	29.45	269.5	15.7	8.1
1979 ..	176.3	30.08	322.2	23.5	-
1980 ..	192.2	34.34	566.4	27.7	-
1981 ..	172.0	45.63	314.2	13.7	-
1982 ..	156.1	49.92	343.9	7.6	-
1983 ..	171.6	47.40	396.5	13.7	-
1984 ..	202.0	47.60	382.9	10.1	-
1985 ..	171.7	50.84	331.9	8.9	-
1986 ..	184.9	53.46	348.4	13.5	-
1987 ..	202.9	48.51	325.0	10.9	-
1988 ..	191.7	55.33	312.9	11.1	-

1/ Value of canned fruit and juices and by products shipped out-of-State and sold within State. Prior to 1979, data are for pack years beginning June 1.

2/ Value FAS shipping point for outshipments, delivered wholesalers local sales.

Source: Hawaii Agricultural Statistics Service, Statistics of Hawaiian Agriculture (annual) and records.

Section 23

DOMESTIC TRADE AND SERVICES

This section presents statistics relating to retail and wholesale trade; hotels; and selected personal, business, automotive, repair, and amusement services. Related data are included in Sections 7, 12, 14 and 15.

These activities have undergone rapid growth in recent decades, largely because of surging tourism and higher price levels. Retail sales increased from $5.1 billion in 1982 to $8.1 billion in 1987. Wholesale sales rose from $4.1 billion in 1982 to $5.4 billion in 1987. Hotels, amusements, and other services reported similar increases during this five-year period. General excise and use tax base data for 1988 indicate continued increases; between 1987 and 1988, the retailing tax base rose 10 percent, the wholesaling base also by 10 percent, and the base for services by 14 percent. Major retail concentrations include Waikiki, Ala Moana Center, Pearlridge Center, and downtown Honolulu. In addition to civilian retail outlets, there are many commissaries, exchanges, clubs, package stores, gasoline stations and food services maintained by the armed forces; these facilities had sales of $558 million in 1988.

Growth has been especially rapid for hotels and related facilities. The number of units in the State rose from 6,800 in 1959 to 68,000 in 1989. There were 455 hotels, motels and apartment-hotels in Hawaii on the latter date, including 296 on the Neighbor Islands. More than 28 percent of all transient units were in condominium structures. Occupancy rates averaged 86 percent in Waikiki and 67 percent on the Neighbor Islands during 1988. The average daily room rate was $88 in 1988. Total hotel rentals in 1988 exceeded $1.4 billion, or $29,000 per unit.

Fully 109 feature motion pictures and television specials and series were filmed in Hawaii in 1987, accounting for local expenditures of $51 million. Both totals were all-time highs.

The major sources of these data are the United State Censuses of Retail Trade, Wholesale Trade, and Service Industries, most recently published for 1987. Statistics on the retailing, wholesaling, and services tax bases are available from the Hawaii State Department of Taxation. Data on hotel room counts, occupancy and other characteristics are published by the Hawaii Visitors Bureau and the firm of Pannell Kerr Forster. The Film Industry Branch of the Department of Business and Economic Development compiles data on motion picture and television production. A summary of figures on trade and services in earlier years appears in Historical Statistics of Hawaii, Section 20. The Statistical Abstract of the United States: 1989, Section 28, presents similar data for other states and the nation as a whole.

Table 641.-- GENERAL EXCISE TAX BASE FOR TRADE AND SERVICE ACTIVITIES: 1978 TO 1988

[In thousands of dollars. Data are on a cash basis accounting]

Year reported 1/	Retailing	Services 2/	Amusement, etc. 3/	Intermediary services	Wholesaling
1978 4/ ...	4,774,076	1,222,996	104,085	49,793	2,158,707
1979	5,519,889	1,412,195	109,143	44,302	2,800,951
1980	6,109,628	1,743,003	121,562	53,244	2,986,877
1981	6,700,750	1,809,913	129,501	57,191	3,528,763
1982	6,874,963	1,905,068	130,280	69,775	3,207,768
1983	7,438,193	2,134,524	144,095	102,227	3,694,220
1984	8,111,893	2,368,415	153,723	128,875	4,025,324
1985	8,499,254	2,481,669	154,830	116,300	4,095,220
1986	9,239,373	2,784,169	159,881	127,992	4,443,166
1987 5/ ...	9,449,673	2,896,159	157,824	148,557	5,188,215
1988 5/ ...	10,385,974	3,287,715	165,729	182,138	5,683,815

1/ Calendar year in which reported, including "prior years" reports. Income received in December is reported the following January, hence these annual totals generally refer to an "income year" ended November 30.

2/ Includes both business and professional services but excludes hotels, theater, amusement, broadcasting, and intermediary services.

3/ Theater, amusement, broadcasting, etc.

4/ Partly estimated.

5/ Data exclude tax base for unallocated collections, distributed for earlier years. The 1987 totals for retailing and services have been revised; for unrevised data, see Data Book 1988, table 668.

Source: Hawaii State Department of Taxation, "General Excise and Use Tax Base" (annual tabular release).

Table 642.-- CHARACTERISTICS OF RETAIL ESTABLISHMENTS, FOR THE STATE, 1982 AND 1987, AND OAHU AND THE NEIGHBOR ISLANDS, 1987

[Includes only establishments with payroll. Excludes establishments operated by the armed forces]

Subject	1982	1987		
		State total	Oahu	Neighbor islands
Number of establishments	6,564	7,195	4,918	2,277
Sales ($1,000)	5,100,237	8,084,416	6,079,556	2,004,860
Annual payroll ($1,000)	696,064	1,016,127	752,824	263,303
First quarter payroll ($1,000)	(NA)	242,236	178,477	63,759
Paid employees for pay period including March 12	81,950	101,969	74,485	27,484
Unincorporated businesses:				
Individual proprietorships	(NA)	1,215	792	423
Partnerships	(NA)	408	250	158

NA Not available.

Source: U.S. Bureau of the Census, 1987 Census of Retail Trade, Hawaii, RC87-A-12 (May 1989), tables 1, 2, 8, and 9.

Table 643.-- RETAIL TRADE FOR COUNTIES AND URBAN PLACES: 1987

[Includes only establishments with payroll. Excludes establishments operated by the armed forces]

Geographic area	Number of establishments	Sales ($1,000)	Annual payroll ($1,000)	Paid employees for pay period including March 12
State total	7,195	8,084,416	1,016,127	101,969
Hawaii County	842	721,798	87,929	9,456
Hilo	378	403,435	49,429	5,077
Kailua	219	186,592	23,352	2,553
Balance of county	245	131,771	15,148	1,826
Honolulu County	4,918	6,079,556	752,824	74,485
Ahuimanu	5	(D)	(D)	(D)
Aiea	246	420,642	47,567	4,593
Ewa	2	(D)	(D)	(D)
Ewa Beach	16	9,687	1,199	158
Hauula	10	10,815	1,202	123
Heeia	3	3,288	786	78
Hickam Housing	-	-	-	-
Honolulu	3,644	4,451,451	559,406	54,846
Iroquois Point	-	-	-	-
Kahaluu	1	(D)	(D)	(D)
Kailua	173	175,779	22,961	2,383
Kaneohe	188	292,847	31,582	3,036
Laie	7	7,307	972	156
Maile	5	2,651	475	57
Makaha	8	6,780	639	98
Makakilo City	3	(D)	(D)	(D)
Maunawili	8	3,199	282	30
Mililani Town	35	68,832	7,728	588
Mokapu	1	(D)	(D)	(D)
Nanakuli	9	9,914	788	90
Pearl City	101	137,280	17,042	1,806
Schofield Barracks ...	3	432	85	9
Wahiawa	102	71,320	10,233	1,177
Waialua	12	5,564	653	72
Waianae	39	49,897	5,855	611
Waimanalo	25	15,660	2,417	268
Waimanalo Beach	-	-	-	-
Waipahu	154	208,664	22,902	2,014
Waipio Acres	-	-	-	-
Balance of county	118	99,948	15,677	2,117

Continued on next page.

Table 643.-- RETAIL TRADE FOR COUNTIES AND URBAN PLACES: 1987 -- Con.

Geographic area	Number of establishments	Sales ($1,000)	Annual payroll ($1,000)	Paid employees for period including March 12
Kauai County	464	362,491	47,121	5,173
Hanamaulu	7	2,932	640	108
Kalaheo	8	3,815	591	68
Kapaa	108	72,905	8,965	993
Kekaha	4	(D)	(D)	(D)
Lihue	158	155,160	18,116	1,773
Balance of county	179	(D)	(D)	(D)
Maui County	971	920,571	128,253	12,855
Island of Lanai	10	5,260	727	69
Island of Molokai	29	21,436	2,359	247
Kahului	191	294,026	36,963	3,471
Kihei	105	92,034	12,382	1,588
Lahaina	361	277,365	44,865	4,579
Makawao	9	6,046	540	68
Pukalani	14	19,169	2,100	229
Wailuku	132	115,312	14,036	1,207
Balance of county	120	89,923	14,281	1,397

(D) Withheld to avoid disclosing data for individual companies.

Source: U.S. Bureau of the Census, 1987 Census of Retail Trade, Hawaii, RC87-A-12 (May 1989), table 5.

Table 644.-- RETAIL TRADE, BY KIND OF BUSINESS: 1982 AND 1987

[Limited to establishments with payroll. Excludes establishments operated by the armed forces]

SIC code	Kind of business	Number of establishments		Sales		
		1982	1987	1982 ($1,000)	1987 ($1,000)	Percent change
	Retail trade	6,569	7,204	5,101,671	8,087,398	58.5
52	Building materials and garden supplies	136	149	149,622	230,051	53.8
53	General merchandise ...	160	151	748,493	1,253,965	67.5
54	Food stores	836	921	1,081,175	1,571,829	45.4
55 ex. 554	Automotive dealers	239	281	540,566	1,221,516	126.0
554	Gasoline service stations	389	355	400,141	427,232	6.8
56	Apparel and accessory stores	828	963	379,746	578,467	52.3
57	Furniture and home-furnishings stores ..	365	402	160,828	280,781	74.6
58	Eating and drinking places	1,894	2,209	872,558	1,350,648	54.8
591	Drug and proprietary stores	129	112	337,590	441,584	30.8
59 ex. 591	Miscellaneous retail stores...............	1,593	1,661	522,198	731,325	40.0

Source: U.S. Bureau of the Census, 1987 Census of Retail Trade, Hawaii, RC87-A-12 (May 1989), table 3.

Table 645.-- MERCHANDISE LINE SALES OF RETAIL ESTABLISHMENTS WITH PAYROLL, FOR THE STATE AND OAHU: 1982

Merchandise line	Number of establishments		Sales ($1,000)	
	State total	Oahu	State total	Oahu
Total retail trade 1/	6,139	4,318	5,101,671	3,898,767
Groceries and other foods	1,127	760	908,817	638,919
Meals and snacks	1,852	1,394	762,547	615,707
Alcoholic drinks	892	650	139,845	108,396
Packaged alcoholic beverages	616	407	150,107	112,975
Cigars, cigarettes, and tobacco	717	482	63,754	49,745
Drugs, health aids, and beauty aids	674	433	265,268	208,242
Men's and boys' clothing exc. footwear	816	500	186,809	146,419
Women's and girls' wear exc. footwear	977	608	358,826	285,930
Footwear exc. infants and toddlers	494	320	67,200	55,486
Sewing, knitting, and needlework goods	178	95	25,803	19,439
Curtains, draperies, and dry goods	223	118	33,762	26,956
Major household appliances	173	104	47,975	34,574
Small electric appliances	202	124	31,128	22,813
TVs and video recorders and tapes	156	104	23,670	18,699
Audio equipment and musical instruments and supplies	270	173	47,674	38,482
Furniture and sleep equipment	185	128	73,472	55,307
Floor coverings	122	70	15,436	10,450
Kitchenware and home furnishings	430	270	54,895	43,674
Jewelry	860	584	165,600	137,562
Optical goods	103	73	10,010	8,550
Sporting goods	313	202	56,792	44,229
Hardware, tools, and plumbing and electrical supplies	253	130	56,361	37,555
Lawn and garden equipment and supplies	311	183	51,630	37,276
Lumber and building materials	152	82	100,242	54,935
Cars, trucks, and powered vehicles	97	69	391,570	320,107
Automotive fuels	425	286	365,151	274,029
Automotive lubricants	428	282	10,627	7,539
Auto tires, batteries, and accessories	518	343	121,699	84,532
All other merchandise	1,220	787	354,915	277,014
Unclassified merchandise	634	434	30,577	24,303
Nonmerchandise receipts	923	676	127,232	96,847
Miscellaneous merchandise	(X)	(X)	2,277	2,076

X Not applicable.

1/ Because some establishments carry more than one merchandise line, the number of establishments for each line will not add to the indicated totals.

Source on next page.

Table 645.-- MERCHANDISE LINE SALES OF RETAIL ESTABLISHMENTS WITH PAYROLL, FOR THE STATE AND OAHU: 1982 -- Con.

Source: U.S. Bureau of the Census, Census of Retail Trade: Merchandise Line Sales, Hawaii, 1982 (unpublished tabulations filed in the Hawaii State Department of Business and Economic Development Library); cited in Hawaii State Department of Planning and Economic Development, Merchandise Line Sales in Hawaii, 1982 (Statistical Report 185, February 24, 1986).

Table 646.-- DEPARTMENT STORES, FOR THE STATE, OAHU, AND HONOLULU: 1948 TO 1987

Year	Number of stores, Dec.			Sales 1/ (1,000)		
	State total	Oahu	Honolulu CDP 2/	State total	Oahu	Honolulu CDP 2/
1948	2	2	2	(D)	(D)	(D)
1954	4	4	2	(D)	(D)	(D)
1958	7	7	5	30,629	30,629	(D)
1963	13	13	7	71,776	71,776	63,021
1967	15	15	10	131,843	131,843	122,260
1972	19	15	10	215,428	205,619	167,758
1977	23	19	12	375,943	354,087	251,219
1982	24	21	13	483,195	453,656	322,155
1987	26	19	10	646,151	575,151	380,982

D Withheld to avoid disclosing data for individual companies.

1/ Data include leased departments. Data after 1972 exclude sales taxes and finance charges.

2/ Honolulu Census Designated Place, consisting of the area southwest of the crest of the Koolau Mountains, between Red Hill and Makapuu Point.

Source: U.S. Bureau of the Census, U.S. Census of Business: 1948, Bulletin No. 1-RWS-51; U.S. Census of Business: 1954, Bulletin R-1-52 and CBD-47; U.S. Census of Business: 1958, BC58-RA52 and BC58-CBD36; U.S. Census of Business: 1963, BC63-RA13 and BC63-MRC-43; U.S. Census of Business, 1967, BC67-RA13 and BC67-MRC-12; Census of Retail Trade, 1972, RC72-A-12 and RC72-C-12; 1977 Census of Retail Trade, RC77-A-12 and RC77-C-12; 1982 Census of Retail Trade, RC82-A-12; 1987 Census of Retail Trade, RC87-A-12.

Table 647.-- FOOD STORES AND SUPERMARKETS: 1986

Subject	Amount	Rank 1/
Food stores:		
Number	2,049	...
Sales (million dollars)	1,344.4	...
Supermarkets:		
Number	106	54
Sales (million dollars)	751	54
Square feet per store	14,821	55
Weekly sales per square foot (dollars)	9.19	2
Weekly sales per checkout (dollars)	20,031	18
Population per store	9,573	6
Sales per capita (dollars)	740	54
Employees per store	39.8	33
Checkouts per store	6.8	29

1/ Among 55 market areas in the U.S.

Source: Progressive Grocer's 1988 Marketing Guidebook (1987).

Table 648.-- VIDEOCASSETTE RECORDER SALES: 1978 TO 1988

Year	Total units	Residential use	Commercial use
1978	2,196	2,140	56
1979	3,332	3,124	208
1980	4,892	4,555	337
1981	7,514	6,946	568
1982	15,566	15,178	388
1983	25,360	25,032	328
1984	44,720	44,285	435
1985	63,782	62,548	1,234
1986	52,203	51,795	408
1987	50,822	50,383	439
1988	47,224	46,720	504

Source: Hawaiian Electric Company, Inc., Market Research, records.

Table 649.-- ALCOHOLIC BEVERAGE SALES, BY TYPE: 1987 AND 1988

[Wine gallons of 128 fluid ounces]

Type of beverage	Total sales		Per capita sales 1/	
	1987	1988	1987	1988
All types	34,898,122	35,447,580	29.1	29.1
Distilled spirits	1,752,069	1,769,604	1.5	1.5
Sparkling wine	300,090	320,159	0.2	0.3
Still wine	2,221,919	2,231,709	1.9	1.8
Cooler beverage	525,745	460,434	0.4	0.4
Draft beer	1,552,188	1,608,408	1.3	1.3
Beer other than draft	28,546,111	29,057,266	23.8	23.8

1/ Based on estimated de facto population.
Source: Hawaii State Department of Taxation, Tax Research and Planning, records.

Table 650.-- TOBACCO TAX BASE, TOTAL AND PER CAPITA: 1978 TO 1988

[Wholesale value. Excludes sales on military bases. By calendar year in which reported; data accordingly refer in general to tobacco sales for 12-month periods ended November 30]

Year	Tax base ($1,000)	Per capita tax base 1/ (dollars)	Year	Tax base ($1,000)	Per capita tax base 1/ (dollars)
1978	28,082	27.69	1984	48,262	42.39
1979	31,020	29.75	1985	47,188	41.05
1980	33,275	31.52	1986	51,796	43.88
1981	35,151	33.02	1987	46,622	38.82
1982	37,338	34.31	1988	58,819	48.21
1983	49,580	44.46			

1/ Based on de facto population estimates in table 6.
Source: Hawaii State Department of Taxation, "Liquor Tax Base, Collections and Permits; Tobacco Tax Base, Collections and Licenses" (annual release).

Table 651.-- CHARACTERISTICS OF MAJOR SHOPPING CENTERS: 1985

[Includes all centers on Oahu with more than 175,000 square feet of gross leaseable area and all centers on other islands with more than 100,000 square feet of building area]

Island and name of center	Location	Year opened	Site area (acres)	Gross lease-able area (1,000 square feet)	Parking spaces	Number of stores
Oahu:						
Ala Moana Center ...	Honolulu	1959	50	1,500	7,800	155
Dillingham Plaza ...	Honolulu	1968	8	187	550	7
Kahala Mall	Honolulu	1970	22	370	1,425	60
Koko Marina S.C. ...	Honolulu	1963	6	186	846	60
Pearl City S. C. ...	Pearl City	1965	15	249	871	60
Pearlridge Center ..	Aiea	1972	54	1,200	4,915	150
Royal Hawaiian S. C.	Honolulu	1981	6	280	600	(NA)
Waikiki Galleria ...	Honolulu	1980	1	194	403	17
Waikiki Shopping Plaza	Honolulu	1977	1	300	300	50
Windward City S.C.	Kaneohe	1959	15	210	(NA)	40
Windward Mall	Kaneohe	1982	32	530	2,300	98
Hawaii:						
Kaiko'o Mall S. C. .	Hilo	1970	14	220	950	33
Maui:						
Kaahumanu Center ...	Kahului	1973	25	300	1,400	50
Kahului S. C.	Kahului	1951	17	104	1,000	30
Maui Mall	Kahului	1971	25	182	1,400	38
Kauai:						
Kukui Grove Center	Lihue	1982	35	311	1,590	52
Lihue S. C.	Lihue	1966	9	142	551	24

NA Not available.

Source: Hawaii Chapter, International Council of Shopping Centers, and the Chamber of Commerce of Hawaii, Hawaii Shopping Center Directory, 1985 Edition.

Table 652.-- SHOPPING CENTER CHARACTERISTICS: 1986 AND 1987

Subject	1986	1987
Number of shopping centers	117	123
Total leasable retail area (million square feet)	12.3	12.7
Retail sales in shopping centers (billion dollars)	2.0	2.2
Percent of total nonautomotive retail sales	39	39
Number of adults shopping in centers monthly (1,000)	740	740
State sales tax revenues from shopping centers (million dollars)	82	87
Employment in shopping centers (1,000)	33	34
Percent of total nonagricultural employment	8	8
New center construction starts	None	1
Construction contract value (million dollars)	None	2

Source: International Council of Shopping Centers, The Scope of the Shopping Center Industry in the United States 1988 (New York, 1988), p. 16.

Table 653.-- RETAIL SHOPPING MALL SPACE AND RENTAL RATES, FOR OAHU: JANUARY 1989

Mall classification	Number of centers	Gross leasable area (1,000 sq. ft.)	Vacant		Rental rates (dollars per sq. ft. per mo.)		Common area maintenance (dollars per sq. ft. per mo.)
			1,000 sq. ft.	Percent	Low	High	
Total	79	9,612	304	3.2	1.27	10.00	0.49
Neighborhood	30	2,483	82	3.3	1.27	2.60	0.29
Strip	26	800	46	5.7	1.42	4.00	0.32
Specialty	12	1,146	74	6.5	2.00	10.00	0.82
Community	7	1,570	66	4.2	1.25	3.20	0.35
Regional	2	913	31	3.4	1.55	5.25	0.68
Super regional	2	2,700	5	0.2	3.09	8.00	0.51

Source: Grubb & Ellis, Hawaii Real Estate 1989, p. 18.

Table 654-- RETAIL SALES AND HOTEL RECEIPTS OF FACILITIES OPERATED FOR THE ARMED FORCES, BY TYPE AND FACILITY: 1986 TO 1988

[In dollars]

Type of facility	1986	1987	1988
Retail sales 1/	454,092,570	465,168,573	558,243,976
Commissaries	139,076,522	145,795,399	159,079,031
Exchanges	240,951,904	247,501,620	326,197,701
Clubs and food services	46,520,878	46,166,032	45,454,512
Package stores	16,268,682	13,207,235	8,495,505
Gas stations	5,025,084	6,110,441	10,022,536
Vending outlets	6,249,500	6,387,846	8,994,691
Hotel receipts 2/	15,839,089	16,901,584	17,887,611
Room	7,481,014	8,027,520	8,324,284
Food	6,367,191	6,923,720	7,599,969
Beverage	1,990,884	1,950,344	1,963,358

1/ Calendar year data. Excludes Hale Koa Hotel.
2/ Hale Koa Hotel receipts for fiscal years ended September 30.
Source: Hawaii State Data Center, annual facilities survey.

Table 655.-- RETAIL SALES AND HOTEL RECEIPTS OF CIVILIAN AND MILITARY ESTABLISHMENTS WITH PAYROLL: 1977 TO 1987

[In millions of dollars]

Control of establishment	Retail sales			Hotel receipts		
	1977	1982	1987	1977	1982	1987
Total	3,455.9	5,506.7	8,552.6	556.1	987.1	1,578.9
Civilian	3,225.3	5,101.7	8,087.4	548.7	973.3	1,562.0
Military	230.6	405.0	465.2	7.4	13.8	16.9
Percent	6.7	7.4	5.4	1.3	1.4	1.1

Source: U.S. Bureau of the Census, Census of Retail Trade and Census of Service Industries, 1982 and 1987; Data Book 1988, table 685.

Table 656 .-- DUTY-FREE STORE REVENUES: 1981 TO 1988

[In dollars. These sales revenues are not included in the general excise and use tax base data cited elsewhere in this volume]

Year	Revenues	Year	Revenues
1981	145,264,415	1985	180,126,919
1982	145,382,976	1986	270,891,959
1983	150,424,959	1987	369,788,429
1984	170,661,949	1988	445,072,755

Source: *Honolulu Star-Bulletin*, December 11, 1987, p. D-1; Duty Free Shoppers Limited Partnership, records.

Table 657.-- CHARACTERISTICS OF WHOLESALE ESTABLISHMENTS, FOR THE STATE, 1982 AND 1987, AND OAHU AND THE NEIGHBOR ISLANDS, 1987

Subject	1982	1987		
		State total	Oahu	Neighbor Islands
Number of establishments	1,810	1,998	1,577	421
Sales ($1,000)	4,084,369	5,362,490	4,501,802	860,688
Annual payroll ($1,000)	287,626	415,114	357,469	57,645
First quarter payroll ($1,000) ...	69,858	100,963	(NA)	(NA)
Paid employees for pay period including March 12 (number)	17,210	20,157	16,907	3,250
Operating expenses ($1,000)	620,882	883,223	(NA)	(NA)
Inventories ($1,000):				
Beginning of year	457,525	472,167	(NA)	(NA)
End of year	440,723	579,212	(NA)	(NA)

NA Not available.

Source: U.S. Bureau of the Census, *1982 Census of Wholesale Trade, Hawaii*, WC82-A-12 (September 1984), table 1; *1987 Census of Wholesale Trade, Hawaii*, WC87-A-12 (April 1989), tables 1, 3, 8, and 9.

Table 658.-- WHOLESALE TRADE, FOR COUNTIES AND SPECIFIED PLACES: 1987

Geographic area	All wholesalers		Merchant wholesalers	
	Number of establishments	Sales ($1,000)	Number of establishments	Sales ($1,000)
State total	1,998	5,362,490	1,718	3,762,672
Hawaii County	191	347,224	171	269,888
Hilo	116	275,949	102	204,498
Kailua	36	33,323	32	(D)
Honolulu County	1,577	4,501,802	1,340	3,127,947
Aiea	67	172,664	61	144,516
Ewa Beach	13	27,206	12	(D)
Honolulu	1,293	3,816,710	1,095	2,621,357
Kailua	31	21,399	27	16,189
Kaneohe	24	14,315	21	12,606
Pearl City	40	117,864	33	46,125
Waipahu	49	135,071	41	103,325
Kauai County	73	124,882	64	96,221
Lihue	43	85,106	38	(D)
Maui County	157	388,582	143	268,616
Island of Lanai	1	(D)	1	(D)
Island of Molokai ...	5	3,047	4	(D)
Kahului	73	260,544	67	164,568
Wailuku	42	77,007	39	(D)

(D) Withheld to avoid disclosing data for individual companies.

Source: U.S. Bureau of the Census, 1987 Census of Wholesale Trade, Hawaii, WC87-A-12 (April 1989), table 5.

Table 659.-- WHOLESALE TRADE, BY TYPE OF OPERATION AND KIND OF BUSINESS: 1987

Type of operation and kind of business	Number of establishments	Sales ($1,000)
Wholesale trade	1,998	5,362,490
Type of operation:		
Merchant wholesalers	1,718	3,762,672
Manufacturers' sales branches and offices	130	1,060,066
Agents, brokers, and commission merchants	150	539,752
Kind of business:		
Motor vehicles and motor vehicle parts and supplies	121	409,040
Furniture and home furnishings	69	105,823
Professional and commercial equipment and supplies	193	427,975
Lumber and other construction materials	82	217,920
Metals and minerals, except petroleum	18	41,947
Electrical goods	116	367,006
Hardware, and plumbing and heating equipment and supplies	93	164,382
Machinery, equipment, and supplies	144	241,390
Miscellaneous durable goods	202	226,496
Paper and paper products	69	203,601
Drugs, drug proprietaries, and druggists' sundries	40	133,740
Apparel, piece goods, and notions	108	146,805
Groceries and related products	388	1,453,873
Farm-product raw materials	10	7,477
Chemicals and allied products	39	105,375
Petroleum and petroleum products	50	468,694
Beer, wines, and distilled alcoholic beverages	41	270,773
Miscellaneous nondurable goods	215	370,173

Source: U.S. Bureau of the Census, 1987 Census of Wholesale Trade, Hawaii, WC87-A-12 (April 1989), table 1.

Table 650.-- CHARACTERISTICS OF SERVICE ESTABLISHMENTS WITH PAYROLL, FOR THE STATE, 1982 AND 1987, AND OAHU AND THE NEIGHBOR ISLANDS, 1987

Subject	1982	1987		
		State total	Oahu	Neighbor islands
FIRMS SUBJECT TO FEDERAL INCOME TAX				
Number of establishments	(NA)	7,458	5,704	1,754
Excluding hospitals	6,469	7,456	5,702	1,754
Receipts ($1,000)	(NA)	4,455,953	3,234,314	1,221,639
Excluding hospitals	2,659,651	(D)	(D)	1,221,639
Annual payroll ($1,000)	(NA)	1,499,500	1,124,039	375,461
Excluding hospitals	904,328	(D)	(D)	375,461
First quarter payroll ($1,000)	(NA)	356,723	268,298	88,425
Paid employees 1/	(NA)	91,673	66,533	25,140
Excluding hospitals	71,051	(D)	(D)	25,140
Unincorp. businesses or operations:				
Individual proprietorships	(NA)	2,146	1,578	568
Partnerships	(NA)	452	321	131
FIRMS EXEMPT FROM FEDERAL INCOME TAX				
Number of establishments	(NA)	998	685	313
Excluding hospitals	881	973	672	301
Revenue ($1,000)	(NA)	1,222,359	1,044,911	177,448
Expenses, except hospitals ($1,000)	315,006	464,222	(NA)	(NA)
Annual payroll ($1,000)	(NA)	521,108	444,007	77,101
Excluding hospitals	122,302	176,335	145,635	30,700
First quarter payroll ($1,000)	(NA)	128,303	109,597	18,706
Paid employees 1/	(NA)	28,541	23,594	4,947
Excluding hospitals	12,442	13,811	11,186	2,625

D Withheld to avoid disclosing data for individual companies.
NA Not available.
1/ For pay period including March 12.

Source: U.S. Bureau of the Census, *1987 Census of Service Industries, Hawaii*, SC87-A-12 (July 1989), tables 1a, 1b, 3a, 3b, 8a, 8b, 9a, and 9b.

Table 661.-- SERVICE ESTABLISHMENTS WITH PAYROLL AND SUBJECT TO FEDERAL INCOME TAX, FOR COUNTIES AND SELECTED URBAN PLACES: 1987

Geographic area	Number of establishments		Receipts ($1,000)	
	All services	Hotels 1/	All services	Hotels 1/
State total	7,458	237	4,455,953	1,562,043
Hawaii County	736	35	382,211	191,918
Hilo	388	9	131,071	12,539
Kailua	170	13	85,259	46,113
Honolulu County	5,704	130	3,234,314	868,888
Aiea	188	3	70,268	2,575
Ewa Beach	18	-	3,838	-
Honolulu	4,529	118	2,848,869	828,367
Kailua	242	-	57,539	-
Kaneohe	143	1	36,243	(D)
Mililani Town	39	-	12,131	-
Pearl City	144	-	45,720	-
Wahiawa	96	1	23,833	(D)
Waianae	24	1	10,155	(D)
Waimanalo	13	-	10,649	-
Waipahu	116	-	26,747	-
Kauai County	293	27	186,636	98,474
Kapaa	56	9	28,560	20,513
Lihue	129	8	69,391	10,311
Maui County	725	45	652,792	402,763
Island of Lanai ...	3	-	(D)	-
Island of Molokai .	20	2	17,641	(D)
Kahului	171	3	110,323	(D)
Kihei	66	7	16,496	8,064
Lahaina	116	17	140,715	102,114
Pukalani	18	-	2,674	-
Wailuku	237	1	67,673	(D)

D Withheld to avoid disclosing data for individual companies.

1/ Including motels and other lodging places (SIC 70), but excluding condominium apartments in transient use.

Source: U.S. Bureau of the Census, 1987 Census of Service Industries, Hawaii, SC87-A-12 (July 1989), table 5.

Table 662.-- SERVICE ESTABLISHMENTS WITH PAYROLL AND SUBJECT TO FEDERAL INCOME TAX, BY KIND OF BUSINESS OR OPERATION: 1982 AND 1987

1972 SIC code	Kind of business or operation	Number of establishments		Receipts		
		1987	1982	1987 ($1,000)	1982 ($1,000)	Percent change
	Total	7,456	6,469	(D)	2,659,651	(D)
70	Hotels, motels, other lodging	237	213	1,562,043	973,328	60.5
72	Personal services	727	704	(D)	100,785	(D)
73	Business services	1,435	1,097	548,807	313,686	75.0
75	Automotive repair, services, & parking	653	615	416,441	249,342	67.0
76	Miscellaneous repair services	255	250	72,490	47,779	51.7
78, 79	Amusement & recreation services, including motion pictures.....	429	346	(D)	128,452	(D)
80, ex. 806	Health services, except hospitals ..	1,979	1,711	(D)	420,211	(D)
81	Legal services	721	672	315,500	173,129	82.2
823, 4, 9	Selected educational services	62	63	11,829	8,032	47.3
83	Social services	90	69	19,319	6,401	201.8
891	Engineering, architectural, surveying services	409	350	281,543	158,104	78.1
893	Accounting, auditing, bookkeeping services	386	325	111,178	75,046	48.1
892, 9	Other services	73	(NC)	11,001	(NC)	(X)

D Withheld to avoid disclosing data for individual companies.
NC Not comparable.
X Not applicable.
Source: U.S. Bureau of the Census, 1987 Census of Service Industries, Hawaii, SC87-A-12 (July 1989), table 3.

Table 663.-- HOTELS, MOTELS, AND OTHER LODGING PLACES: 1987

[Includes only establishments with payroll. Excludes condominium units in rental pools for transient use]

Subject	Number of establish- ments	Receipts ($1,000)	Annual payroll ($1,000)	Paid employees, pay period including March 12
SUBJECT TO FEDERAL INCOME TAX				
Hotels, motels, other lodging .	237	1,562,043	436,081	31,600
Hotels	196	1,539,940	430,648	31,099
25 guestrooms or more	175	1,536,711	429,804	30,995
Less than 25 guestrooms	21	3,229	844	104
Motels, motor hotels, tourist courts	33	20,893	5,085	462
Other lodging places 1/	8	1,210	348	39
EXEMPT FROM FEDERAL INCOME TAX				
Camps and membership lodging 2/	3	(D)	(D)	(D)

1/ Rooming and boarding houses, 6 establishments; camps and recreational vehicle parks, 2.

2/ Sporting and recreational camps, 2; organization hotels and lodging houses on membership basis, 1.

Source: U.S. Bureau of the Census, *1987 Census of Service Industries, Hawaii*, SC87-A-12 (July 1989), tables 1a and 1b.

Table 664.-- HOTEL UNITS AND OCCUPANCY RATES, BY GEOGRAPHIC AREAS: 1969 TO 1989

[Includes condominium units in rental pools for transient occupancy]

Year	Number of hotel units, February			Percent of units occupied, annual average		
	State total	Oahu	Neighbor Islands	State total 1/	Waikiki	Neighbor Islands
1969	22,801	15,992	6,809	77.8	81.3	69.3
1970	26,923	18,449	8,474	71.2	74.1	64.8
1971	32,289	22,531	9,758	60.4	58.9	63.5
1972	35,797	24,742	11,055	68.9	70.0	66.4
1973	36,608	25,108	11,500	77.7	81.5	70.2
1974	38,675	25,365	13,310	77.5	82.0	69.4
1975	39,632	25,352	14,280	74.1	78.3	68.3
1976	42,648	25,851	16,797	76.9	82.6	68.4
1977	44,986	27,363	17,623	77.4	81.2	71.7
1978	47,070	28,546	18,524	79.5	82.1	75.5
1979	49,832	30,065	19,767	73.8	77.1	70.2
1980	54,246	34,334	19,912	69.3	71.7	64.1
1981	56,769	33,967	22,802	68.2	73.9	59.8
1982	57,968	33,492	24,476	70.4	77.7	60.0
1983	58,765	34,354	24,411	69.7	76.6	60.9
1984	62,448	36,848	25,600	76.0	82.6	69.1
1985	65,919	38,600	27,319	76.1	80.8	69.7
1986	66,308	39,010	27,298	81.7	85.7	75.3
1987	65,318	38,185	27,133	81.1	87.2	70.7
1988	69,012	37,841	31,171	78.5	86.0	67.1
1989	68,034	36,467	31,567	(NA)	(NA)	(NA)

NA Not available.

1/ Data include Oahu outside Waikiki, not shown separately.

Source: Hawaii Visitors Bureau, Annual Research Report (annual), Visitor Plant Inventory (periodic), and records.

Table 665.-- VISITOR ACCOMMODATIONS, BY TYPE, 1979 TO 1989, AND BY ISLANDS, 1989

[As of February]

Year and island	Properties			Units		
	Total	Hotels 1/	Condo-miniums 2/	Total	Hotels 1/	Condo-miniums 2/
1979	381	(NA)	(NA)	49,832	41,299	8,533
1980	387	(NA)	(NA)	54,246	42,609	11,637
1981	412	214	198	56,769	42,575	14,194
1982	417	208	209	57,968	43,568	14,400
1983	426	218	208	58,765	45,352	13,413
1984	443	209	234	62,448	44,846	17,602
1985	481	207	274	65,919	44,115	21,804
1986	523	201	322	66,308	43,309	22,999
1987	510	196	314	65,318	43,422	21,896
1988	481	203	278	69,012	47,892	21,120
1989	453	197	256	68,034	48,894	19,140
ISLANDS: 1989						
Oahu	157	104	53	36,467	30,548	5,919
Waikiki 3/	129	83	46	32,808	27,604	5,204
Rest of Oahu	28	21	7	3,659	2,944	715
Other islands	296	93	203	31,567	18,346	13,221
Hawaii	73	31	42	8,161	6,143	2,018
Maui	143	31	112	15,439	7,503	7,936
Lanai	1	1	-	10	10	-
Molokai	7	2	5	559	326	233
Kauai	72	28	44	7,398	4,364	3,034

NA Not available.

1/ Hotels, apartment hotels, and cottages. Excludes condominium properties. In 1989, there were 155 hotels (with 47,474 units), 31 apartment hotels (with 1,138 units), and 11 cottage hotels (with 282 units).

2/ Condominium accommodations in rental pools for transient use.

3/ Includes Diamond Head and Kahala but not areas ewa and mauka (west and north) of the Ala Wai Canal.

Source: Hawaii Visitors Bureau, Visitor Plant Inventory, 1979 to 1989.

Table 666.-- GENERAL EXCISE TAX BASE FOR RENTALS: 1978 TO 1988

[In thousands of dollars. Data are on a cash basis accounting]

Year reported 1/	Total	Hotel rentals	All other rentals 2/
1978 3/	1,392,947	535,874	857,073
1979	1,699,947	672,098	1,027,849
1980	1,820,715	708,620	1,112,095
1981	2,040,505	770,705	1,269,800
1982	2,265,287	844,926	1,420,361
1983	2,470,820	876,227	1,594,593
1984	2,743,855	984,518	1,759,337
1985	3,037,254	1,122,268	1,914,986
1986	3,278,450	1,212,782	2,065,668
1987 4/	3,443,271	1,369,401	2,073,870
1988 4/	3,715,546	1,408,891	2,306,655

1/ Calendar year in which reported, including "prior years" reports. Income received in December is reported the following January, hence these annual totals generally refer to an "income year" ended November 30.

2/ Includes residential, office, automobile, and equipment rentals, and land leases.

3/ Partly estimated.

4/ Data exclude tax base for unallocated collections, distributed for earlier years. The 1987 totals have been revised; for unrevised data, see Data Book 1988, table 699.

Source: Hawaii State Department of Taxation, "General Excise and Use Tax Base" (annual tabular release).

Table 667.-- HOTEL OCCUPANCY AND ROOM RATES, AND FOOD AND BEVERAGE SALES, BY ISLANDS: ANNUAL AVERAGES, 1987 AND 1988

[1987 figures revised from Data Book 1988, table 700]

Subject and year	The State	Oahu	Hawaii	Maui	Kauai	Molokai
Percentage of occupancy:						
1987	81.07	86.75	60.83	76.22	74.15	45.40
1988	78.48	85.42	56.38	73.22	67.49	45.30
Average daily room rate (dollars):						
1987	80.03	68.99	82.21	127.05	81.65	64.26
1988	87.94	75.66	87.15	134.26	94.04	59.06
Average daily guest rate (dollars):						
1987	40.19	35.55	41.32	59.89	37.64	28.90
1988	44.22	39.20	42.92	63.31	43.66	28.73
Average daily food sales per room (dollars):						
1987	20.37	16.99	31.31	28.81	22.50	31.73
1988	21.73	17.86	32.60	30.42	26.28	30.18
Average daily beverage sales per room (dollars):						
1987	6.50	5.00	9.95	11.16	6.94	10.36
1988	6.60	4.81	10.18	11.45	8.21	9.52
Average food sales per cover (dollars):						
1987	11.67	10.83	13.55	13.19	12.54	10.33
1988	12.59	11.80	13.81	13.74	13.88	11.88

Source: Pannell Kerr Forster, Trends in the Hotel Industry, Hawaii, December 1988.

Table 668.-- PERCENT OF HOTEL UNITS OCCUPIED, BY GEOGRAPHIC AREAS: ANNUAL AVERAGES, 1981 TO 1988

[Includes resort condominium units. Coverage prior to 1986 excluded several major hotel chains]

Geographic area	1981	1982	1983	1984	1985	1986	1987	1988
State total	68.2	70.4	69.7	76.0	76.1	81.7	81.1	78.5
Oahu	74.1	77.8	75.8	81.2	81.5	85.4	86.8	85.4
Waikiki	73.9	77.7	76.6	82.6	80.8	85.7	87.2	86.0
Hawaii	44.9	44.0	44.7	55.6	57.6	62.9	60.8	56.4
Hilo	35.3	37.7	39.2	58.2	57.8	54.6	55.3	49.8
Kailua-Kona	49.4	46.9	47.0	54.9	57.5	64.6	62.5	58.4
Maui	70.3	73.9	75.2	80.5	78.5	81.5	76.2	73.2
West Maui	73.7	78.0	77.8	84.1	82.5	85.8	79.8	76.2
Other	58.3	61.4	67.0	70.3	69.6	70.9	66.9	64.4
Kauai	62.7	57.5	57.2	63.0	64.8	77.6	74.2	67.5
South	46.2	44.2	50.2	63.1	70.1	82.1	80.6	71.9
East	68.5	63.4	59.3	63.0	62.6	75.4	71.8	65.4
Molokai 1/	...	...	...	...	...	50.3	45.4	45.3
Neighbor island average	59.8	60.0	60.9	69.1	69.7	75.3	70.7	67.1

1/ Not available before 1986.

Source: Pannell Kerr Forster, Trends in the Hotel Industry, Hawaii (monthly) and records.

Table 669.--AVERAGE DAILY ROOM AND GUEST RATES, BY ISLANDS: 1978 TO 1988

[In dollars. Annual averages, unless otherwise specified]

Type of rate and year	The State	Oahu	Hawaii	Maui	Kauai	Molokai 1/
Average daily room rate:						
1978	38.49	35.95	36.46	47.49	42.20	...
1979	44.41	41.32	41.93	57.10	47.90	...
1980	47.28	42.83	46.40	61.14	54.38	...
1981	49.73	43.05	47.16	73.27	56.06	...
1982	51.78	44.80	47.37	75.02	58.48	...
1983	54.78	46.93	48.84	81.60	59.78	...
1984	59.25	49.45	57.17	88.89	65.05	...
1985	68.84	57.70	64.06	98.51	70.06	...
1986	73.20	62.13	75.19	113.66	75.37	56.73
1987	80.09	69.04	82.21	127.05	81.65	64.26
1988	87.94	75.66	87.15	134.26	94.04	59.06
Average daily guest rate:						
1978	19.41	18.23	18.41	23.62	20.60	...
1979	22.70	21.10	21.59	29.70	23.75	...
1980	24.40	22.32	24.03	31.52	26.32	...
1981	25.70	22.56	24.41	37.04	27.42	...
1982	26.44	23.39	24.64	35.82	28.84	...
1983	27.71	24.28	22.29	40.53	29.66	...
1984	29.59	24.91	29.00	43.64	31.31	...
1985	34.39	29.24	32.33	47.86	33.95	...
1986	36.80	31.83	38.16	54.36	36.03	26.05
1987	40.23	35.59	41.32	59.89	37.64	28.90
1988	44.22	39.20	42.92	63.31	43.66	28.73

1/ Not available before 1986.

Source: Pannell Kerr Forster, Trends in the Hotel Industry, Hawaii (monthly).

Table 670.-- HOTEL EMPLOYMENT, PAYROLL, AND RENTAL RATIOS: 1985 TO 1988

[All series in this table exclude condominium units in rental pools for transient occupancy]

Subject	1985	1986	1987	1988
Hotel units, February	44,115	43,309	43,422	47,892
Hotel employment, annual average 1/	28,947	29,300	30,700	34,259
Per hotel unit	0.656	0.677	0.707	0.715
Hotel payrolls, annual 1/ ($1,000)	393,701	424,684	472,253	570,310
Per hotel unit (dollars)	8,924	9,806	10,876	11,908
Per hotel employee (dollars)	13,601	14,494	15,383	16,647
Hotel rentals, annual 2/ ($1,000) .	1,122,268	1,212,782	1,369,401	1,408,891
Per hotel unit (dollars)	25,440	28,003	31,537	29,418
Per hotel employee (dollars)	38,770	41,392	44,606	41,125

1/ For workers covered by the Hawaii Employment Security Law.

2/ General excise tax base. Data before 1987 include estimate for unallocated collections.

Source: Hawaii Visitors Bureau, Visitor Plant Inventory (February issues); Hawaii State Department of Labor and Industrial Relations, Employment and Payrolls in Hawaii (annual); Hawaii State Department of Taxation, "General Excise and Use Tax Base" (annual tabular release).

Table 671.-- TRAVEL AGENCIES, TOUR OPERATORS, AND RELATED SERVICES (SIC 4722), BY COUNTIES: 1986

Subject	State total	Honolulu	Hawaii	Kauai	Maui
Establishments with payroll	471	382	28	15	46
Employees, week including March 12	5,268	4,525	252	169	322
Annual payroll ($1,000)	69,240	60,936	2,755	1,934	3,616

Source: U.S. Bureau of the Census, County Business Patterns 1986, Hawaii, CBP-86-13 (August 1988).

Table 672.-- MOTION PICTURE SERVICES: 1963 TO 1987

[Data limited to establishments with payroll]

Subject and year	Number of establishments	Receipts ($1,000)	Annual payroll ($1,000)	Paid employees, week inc. Mar. 12
Motion picture production, distribution, and services:				
1963	4	(D)	(D)	(D)
1967	4	(D)	(D)	(D)
1972	7	(D)	(D)	(D)
1977	11	926	174	31
1982	15	4,203	1,147	74
1987	25	10,177	2,394	136
Motion picture theaters:				
1963	74	(D)	(D)	(D)
1967	56	(D)	(D)	(D)
1972	59	11,982	2,305	762
1977 1/	50	17,444	(D)	(D)
1982	34	21,329	3,195	519
1987	35	(D)	(D)	(D)

D Withheld to avoid disclosing data for individual companies.

1/ Data include 3 establishments without payroll.

Source: U.S. Bureau of the Census, 1963 Census of Business, Selected Services, Hawaii, BC63-SA13 (1963); 1972 Census of Selected Service Industries, Hawaii, SC72-A-12 (July 1974); 1977 Census of Service Industries, Hawaii, SC77-A-12 (December 1979); 1982 Census of Service Industries, Hawaii, SC82-A-12 (September 1984); 1982 Census of Service Industries, Motion Picture Industry, SC82-I-4 (December 1985); and 1987 Census of Service Industries, Hawaii, SC87-A-12 (July 1989).

Table 673.-- MOTION PICTURE AND TELEVISION PRODUCTION: 1983 TO 1988

Subject	1983	1984	1985	1986	1987	1988
Number of features and programs filmed	63	76	66	81	109	182
Feature films for theater viewing	1	2	1	3	4	2
Feature films for TV viewing	2	2	4	2	2	1
Television specials and series 1/	60	72	61	76	103	179
Gross budgets (millions of dollars) 2/	65.5	77.1	80.6	63.6	232.6	53.8
Feature films and television specials and series	41.2	53.4	60.5	52.9	209.2	36.7
Television commercials and related advertising	24.3	23.7	20.1	10.7	23.4	17.1
Expenditures in Hawaii 3/ (millions of dollars)	35.2	38.2	40.6	35.3	50.5	24.9
Tax revenues generated (millions of dollars)	3.32	3.54	3.8	3.1	4.5	2.24
Spending effect on economy (millions of dollars)	80.1	86.9	90	78	114.8	56.5

1/ Each program in a series counted separately.
2/ Includes post-production costs out of the State.
3/ For all productions, including commercials, stills, etc.
Source: Hawaii State Department of Business and Economic Development, Film Industry Branch, records.

Section 24

FOREIGN AND INTERSTATE COMMERCE

This section includes data on the flow of goods, services, and capital between Hawaii and the rest of the world, with particular emphasis on trade and investment involving foreign countries.

Imports to Hawaii from foreign nations rose from $1.2 billion in 1978 to $1.8 billion in 1988. Exports to foreign countries amounted to only $138 million in 1978, but by 1988 reached $573 million. These figures, it should be noted, refer to merchandise imports and exports through the Honolulu Customs District. They do not necessarily represent exports of commodities originating in Hawaii, nor imports for direct consumption within the State. Adjusted for actual origin and destination, Hawaii imports in 1988 were $1.1 billion; exports, $131 million.

Trade with the Mainland United States has similarly risen in the past decade. Merchandise received from the Mainland increased from $2.9 billion in 1977 to $6.7 billion in 1987. Estimates of the value of merchandise shipped to the Mainland are no longer available.

Among the foreign nations, Hawaii's leading trading partner in 1987 was Japan for both imports and exports. Imports for consumption from Japan amounted to $464 million, or 30 percent of the total, while exports to Japan reached $105 million or 27 percent of all foreign exports. Almost half of all imports for consumption were petroleum and natural gas products and monolithic integrated circuits.

Honolulu Foreign Trade Zone No. 9 handled merchandise valued at $57 million in fiscal 1988. Merchandise handled by Subzone No. 9A, the PRI refinery, was valued at $866 million, almost all of it in petroleum and petroleum products. The other three subzones accounted for a combined total of $371 million.

Foreign-owned businesses in Hawaii had property, plant, and equipment with a gross book value of $3.2 billion in 1987, owned 57,000 acres, and employed 22,400 persons. Foreign investments in Hawaii between 1959 and 1987 totaled $4.7 billion, four-fifths of it Japanese. During the 15-month period ended in March 1988, Japanese investors spent $890 million on Hawaiian real estate.

Sources for statistics on interstate and foreign commerce include the U.S. Bureau of the Census and Bureau of Economic Analysis, Foreign Trade Zone No. 9 and its four subzones, and the DBED Trade and Industry Development Branch. Further information is found in waterborne cargo data by origin and destination, compiled by the Army Corps of Engineers and cited in Section 18.

Comparable data for the nation as a whole appear in Section 29 of Statistical Abstract of the United States: 1989. Long-term Island trends are summarized in Historical Statistics of Hawaii, Section 21.

Table 674.-- INTERSTATE AND FOREIGN TRADE: 1970 TO 1988

[Merchandise imports and exports, foreign and domestic, in millions of dollars. For 1958-1969, see Data Book 1987, table 713]

Year	Merchandise imports					Merchandise exports, total 1/
	Total	Domestic			Foreign	
		Total	Waterborne	Air 1/		
1970	1,431.5	1,256.8	1,172.5	84.3	174.7	349.4
1971	1,258.1	1,034.6	888.7	145.9	223.6	380.8
1972	1,462.5	1,218.8	1,082.2	136.6	243.7	365.0
1973	1,892.9	1,578.0	1,460.1	117.9	314.9	493.9
1974	2,510.0	1,962.9	1,825.0	137.8	547.2	1,017.9
1975	2,843.0	2,044.8	1,872.8	172.0	798.2	844.7
1976	3,310.8	2,488.8	2,269.2	219.5	822.0	903.6
1977	3,792.1	2,885.1	2,648.3	236.8	907.1	938.4
1978	4,146.1	3,140.9	2,890.0	251.0	1,005.2	1,044.7
1979	5,001.2	3,897.0	3,636.9	260.1	1,104.3	1,182.3
1980	6,239.4	4,779.7	4,577.9	201.9	1,459.7	1,569.2
1981	6,241.3	4,716.1	4,500.2	215.9	1,525.2	1,289.2
1982	5,933.8	4,700.3	4,478.8	221.5	1,233.5	1,333.4
1983	6,461.8	5,096.3	4,856.6	239.7	1,365.5	1,440.7
1984	6,568.0	5,309.4	5,047.9	261.5	1,258.6	1,419.8
1985	6,981.2	5,564.2	5,290.2	274.0	1,417.0	1,336.3
1986	7,718.5	6,120.8	5,819.8	301.0	1,597.7	1,389.8
1987	8,604.6	6,685.8	6,376.0	309.8	1,918.8	1,445.3
1988	9,908.0	7,510.3	7,173.4	336.9	2,397.7	1,503.2

1/ Not available separately for foreign and domestic exports.

Source: Hawaii State Department of Business and Economic Development, Hawaii Gross State Product Accounts: 1958 to 1985; Summary Estimates: 1986, 1987, and 1988 (1989).

Table 675.-- FOREIGN TRADE THROUGH THE HONOLULU CUSTOMS DISTRICT: 1984 TO 1988

[Value, in millions of dollars, of U.S. imports and exports entered or exported through the Honolulu Customs District. The data may include imports intended for consumption on the Mainland and exports originated on the Mainland]

Subject	1984	1985	1986	1987	1988
General imports 1/	1,614.2	1,756.3	1,556.9	1,770.1	1,839.6
Imports for consumption 1/ ..	1,397.9	1,553.1	1,425.4	1,558.6	1,559.1
Exports of foreign and domestic merchandise 2/ ...	316.9	388.8	231.1	392.8	572.6

1/ Customs value basis. Excludes vessels under their own power or afloat and shipments valued under $251.

2/ Totals are on f.a.s. (free alongside ship) basis.

Source: U.S. Bureau of the Census, Highlights of U.S. Export and Import Trade, FT990, cumulative totals in December issues.

Table 676.-- FOREIGN TRADE THROUGH THE HONOLULU CUSTOMS DISTRICT, BY METHOD OF TRANSPORTATION: 1988

[See headnote to preceding table]

Category	Value 1/ (million dollars)			Shipping weight (million lb.)	
	Total 2/	Vessel	Air	Vessel	Air
General imports ...	1,839.6	984.0	993.6	8,589.7	32.4
Exports	572.6	106.6	239.9	1,154.0	39.4

1/ Customs value basis for imports; f.a.s. (free alongside ship) value basis for exports. See source for definitions.

2/ Includes categories not tabulated by method of transportation, not shown separately.

Source: U.S. Bureau of the Census, Highlights of U.S. Export and Import Trade, FT 990, December 1988, tables A-5 and B-9.

Table 677.-- IMPORTS AND EXPORTS, BY CUSTOMS DISTRICT AND STATE OF ORIGIN AND DESTINATION: 1987 AND 1988

[In millions of dollars]

Subject	1987	1988
General imports (c.i.f. value basis):		
Entered through Honolulu Customs District	1,863.6	1,937.8
Destined for Hawaii 1/	801.6	1,117.6
Exports (f.a.s. value basis):		
Cleared through Honolulu Customs District	392.8	572.6
Originated in Hawaii 1/	151.7	130.7

1/ Includes commodities through customs districts other than Honolulu. Not available before 1987.

Source: U.S. Bureau of the Census, Highlights of U.S. Export and Import Trade, December 1987, FT 990 (June 1988), tables A-11, B-6, and C-10; Highlights of U.S. Export and Import Trade, December 1988, FT 990 (June 1989), tables A-5 and B-9; and records.

Table 678.-- IMPORTS AND EXPORTS THROUGH THE HONOLULU CUSTOMS DISTRICT, BY REGION OF ORIGIN OR DESTINATION: 1986 AND 1987

[In dollars. Includes all foreign trade through the Honolulu Customs District, and thus may include imports intended for consumption in other States or exports originated in other States. Excludes imports intended for consumption in Hawaii but entering through other customs districts, and exports originated in Hawaii but shipped through other customs districts]

Region	Imports for consumption		Exports of domestic merchandise	
	1986	1987	1986	1987
All regions	1,425,448,868	1,558,625,780	231,101,886	392,820,689
Africa	375,080	5,518,006	301,707	4,870
Asia	1,168,353,226	1,376,898,490	130,866,667	244,820,744
Australia and Oceania ...	169,165,412	91,661,864	75,424,684	115,769,567
Europe	58,231,214	50,938,574	7,482,684	7,377,732
Latin America 1/	5,366,518	3,804,159	624,613	4,324,136
North America 2/	23,957,418	29,804,687	16,401,531	20,523,640

1/ Includes Central and South America, Bermuda, and the Caribbean.

2/ Excluding Latin America.

Source: Hawaii State Department of Business and Economic Development, International Services Branch, Hawaii's Foreign Trade, A Statistical Digest (annual). Compiled from U.S. Bureau of the Census tapes.

Table 679.-- IMPORTS AND EXPORTS THROUGH THE HONOLULU CUSTOMS DISTRICT, TOTAL AND BY LEADING COUNTRIES OF ORIGIN OR DESTINATION: 1987

[See headnote to preceding table]

Country	Total	Imports for consumption	Exports of domestic merchandise
All countries	1,951,446,469	1,558,625,780	392,820,689
Japan	569,382,241	464,219,638	105,162,603
Singapore	283,654,671	279,225,628	4,429,043
Indonesia	231,593,376	228,051,979	3,541,397
Taiwan	168,680,862	157,969,962	10,710,900
Australia	140,349,623	66,087,927	74,261,696
Philippines	113,883,544	111,911,043	1,972,501
Korea, Republic of	112,898,509	52,395,301	60,503,208
China, People's Republic of .	53,589,911	16,655,072	36,934,839
Hong Kong	52,048,310	31,406,090	20,642,220
Canada	50,324,274	29,800,634	20,523,640
New Zealand	34,723,802	23,539,597	11,184,205
Malaysia	18,157,329	18,152,329	5,000
France	16,025,298	15,459,455	565,843
Marshall Islands	13,156,746	34,038	13,122,708
Papua New Guinea	8,997,470	125,671	8,871,799
Italy	8,641,005	8,375,609	265,396
Netherlands	7,549,952	2,828,609	4,721,343
Thailand	7,024,422	6,158,139	866,283
United Kingdom of Great Britain & Northern Ireland	6,496,921	5,708,508	788,413
Saudi Arabia	5,127,927	5,125,908	2,019
Denmark	4,999,807	4,999,807	-
Seychelles	4,968,989	4,968,989	-
Falkland Islands (Islas Malvinas)	4,176,978	-	4,176,978
Germany, Federal Republic of	3,868,698	3,707,497	161,201
Southern Pacific Islands	3,702,766	1,690	3,701,076

Source: Hawaii State Department of Business and Economic Development, International Services Branch, *Hawaii's Foreign Trade 1987, A Statistical Digest*, International Business Series No. 53 (July 1988), table 2. Compiled from U.S. Bureau of the Census tapes.

Table 680.-- IMPORTS AND EXPORTS THROUGH THE HONOLULU CUSTOMS DISTRICT, BY COMMODITY CLASSIFICATION: 1987

[See headnote to table 678]

Commodity	Imports for consumption	Exports of domestic mdse.
All commodities	1,558,625,780	392,820,689
Animal and vegetable products	94,195,329	44,177,795
Wood and paper; printed matter	25,791,308	10,151,877
Textile fibers and products	40,691,411	1,376,979
Chemicals and related products	363,278,114	50,850,059
Crude petroleum, fuel oils	326,864,454	40,033,443
Other chemicals and related products	36,413,660	10,816,616
Nonmetallic minerals and products	20,550,474	715,863
Metals and metal products	845,503,409	249,818,458
Integrated circuits	444,559,280	1,024,827
Motor vehicles	308,851,723	3,001,691
Aircraft and spacecraft	646,410	168,454,936
Other metals and metal products	91,445,996	77,337,004
Specified miscellaneous products	154,873,003	31,089,769
Special classification provisions	13,742,732	4,639,889

Source: Hawaii State Department of Business and Economic Development, International Services Branch, Hawaii's Foreign Trade 1987, A Statistical Digest (International Business Series No. 53, July 1988), tables 7, 10, 20, and 22.

Table 681.-- FOREIGN-TRADE ZONE AND SUBZONE OPERATIONS: 1985 TO 1988

[Years ended September 30]

Subject	1985	1986	1987	1988
Zone No. 9:				
Firms using zone	229	302	400	386
User employment at zone 1/	218	200	299	216
Value of merchandise ($1,000):				
In/out	39,376	53,890	72,951	57,241
Exports	6,196	6,416	10,070	12,026
Revenue ($1,000)	1,123	1,283	1,220	1,247
Expenditures ($1,000)	1,059	1,102	1,052	1,119
Subzone No. 9-A:				
User employment at subzone 1/	212	210	213	233
Merchandise, in/out:				
Quantity (1,000 short tons)	7,680.5	7,717.5	8,107.9	8,581.0
Value (million dollars)	1,450.5	922.3	861.0	865.9
Exports:				
Quantity (1,000 short tons)	2,075.3	1,560.0	1,825.0	1,782.7
Value (million dollars)	402.6	198.4	196.2	186.0
Subzone No. 9-B:				
User employment at subzone 1/	...	6	7	17
Value ($1,000):				
Merchandise, in/out	...	448	1,556	4,724
Exports	...	220	778	2,372
Subzone No. 9-C:				
User employment at subzone 1/	...	2,400	2,000	2,071
Value (million dollars):				
Merchandise, in/out	...	300.8	267.3	273.7
Exports	...	16.2	16.0	16.5
Subzone No. 9-D:				
User employment at subzone	...	1,000	1,250	1,250
Value ($1,000):				
Merchandise, in/out	...	23,646	73,988	92,444
Exports	...	124	1,756	3,149

1/ For firms occupying facilities on a continuing basis only.

Source: Hawaii State Department of Business and Economic Development, Foreign-Trade Zone No. 9, annual reports and records.

Table 682.-- EMPLOYMENT AND PROPERTY, PLANT AND EQUIPMENT OF HAWAII AFFILIATES OF FOREIGN COMPANIES: 1986 AND 1987

[Data for Hawaii nonbank affiliates of U.S. business enterprises owned 10 percent or more, directly or indirectly, by a foreign person]

Subject	1986	1987
Employment, by country of ultimate beneficial owner (1,000)	18.4	22.4
Canada	.7	.7
United Kingdom	1.3	.4
Other Europe	.5	.6
Latin America, Africa, Middle East	2.1	1.5
Asia and Pacific	13.7	19.2
Australia	1.1	1.4
Japan	10.9	15.8
Property, plant, and equipment (million dollars)	2,013	3,203
Manufacturing	...	92
Commercial	...	2,744
Used or operated by affiliate	...	1,913
Leased or rented to others	...	831
Other	...	366
Commercial property, by country of ultimate beneficial owner (million dollars)	...	2,744
Canada	...	31
United Kingdom	...	60
Other Europe	...	8
Latin America, Africa, Middle East	...	10
Asia and Pacific	...	2,636
Australia	...	60
Japan	...	2,467
Land owned (1,000 acres)	52	57

Source: U.S. Department of Commerce, Bureau of Economic Analysis, "U.S. Affiliates of Foreign Companies: 1987 Benchmark Survey Results," Survey of Current Business, July 1989, pp. 116-139.

Table 683.-- EMPLOYMENT AND SHIPMENTS RELATED TO MANUFACTURED EXPORTS: 1985 AND 1986

Subject	1985	1986
Employment related to manufactured exports	5,300	5,300
Percent of civilian employment	1.1	1.1
Manufacturing industries	800	700
Direct export related	300	200
Supporting exports	500	500
Nonmanufacturing industries	4,500	4,600
Trade	3,500	3,600
Other	1,000	1,000
Value of export related manufacturers' shipments 1/	469.9	317.9
Percent of total manufacturers' shipments	13.5	10.3
Direct exports 1/	352.4	214.3
Supporting exports 1/	117.5	103.6

1/ Million dollars.

Source: U.S. Bureau of the Census, "Exports from Manufacturing Establishments: 1985 and 1986," Manufacturing Analytical Report Series, AR86-1 (1989), pp. 20-23.

Table 684.-- JAPANESE OWNERSHIP OF HOTELS, BY ISLANDS: MARCH 1988

Subject	State total	Hawaii	Maui	Lanai	Molokai	Oahu	Kauai
Number of hotels	43	8	4	-	1	28	2
Number of units	19,276	2,384	2,338	-	292	13,453	809
Percent 1/	28.7	31.4	17.4	0	51.4	34.0	13.6

1/ Percent of all units, including condominium accommodations in rental pools for transient use.

Source: Hawaii Visitors Bureau, "List of Japanese Owned Hotels in Hawaii (March, 1988)," unpublished tables.

Table 685.-- AGRICULTURAL LANDHOLDINGS OF FOREIGN OWNERS: DECEMBER 31, 1987 AND 1988

Subject	1987	1988
Parcels owned by foreigners	46	50
Individuals	14	15
Organizations	32	35
Acres owned by foreigners	52,860	53,895
Percent of all privately owned agricultural land 1/	2.7	2.7
Individuals	543	548
Organizations	52,317	53,347
Value of foreign-owned agricultural land ($1,000):		
At time of acquisition	53,212	71,162
Adjusted current value	38,704	57,702

1/ The 1988 percent for Hawaii ranked third among the 50 States, exceeded only by Maine (9.6 percent) and Oregon (3.1), and well above the national percentage (1.0).

Source: U.S. Department of Agriculture, Economic Research Service, Foreign Ownership of U.S. Agricultural Land Through December 31, 1988 (Staff Report No. AGES 880314, April 1988), pp. 5, 8, and 11, and Foreign Ownership of U.S. Agricultural Land Through December 31, 1988 (Staff Report No. AGES 89-14, April 1989), pp. 5, 8, and 11.

Table 686.-- FOREIGN INVESTMENTS IN HAWAII, TOTAL AND JAPANESE: ANNUALLY, PRE-1970 TO JUNE 1989

[In thousands of dollars. Data are estimates based on incomplete reporting, and do not include undisclosed amounts]

Year	Total foreign investments	Investments by Japanese
Total completed	7,521,231	6,008,824
1970 and earlier years	48,770	44,970
1971-1975	452,069	327,869
1976	120,740	55,940
1977	32,200	17,800
1978	44,500	13,500
1979	297,470	165,250
1980	124,485	80,100
1981	108,775	70,800
1982	629,880	489,880
1983	141,176	134,900
1984	206,600	116,000
1985	139,724	120,654
1986	1,151,354	1,107,854
1987	1,238,225	1,039,225
1988	1,766,563	1,627,582
1989, January-June	1,018,700	596,500
Future investments	1,604,800	1,265,800

Source follows table 688.

Table 687.-- FOREIGN INVESTMENTS IN HAWAII, BY COUNTRY OF INVESTOR: PRE-1970 TO JUNE 1989

[In thousands of dollars. Data are estimates based on incomplete reporting, and do not include undisclosed amounts]

Country of investor	Pre-1970 through June 1989	1987	1988	1989: Jan.-June
All countries	7,521,231	1,238,225	1,776,563	1,018,700
Australia	636,381	57,900	68,581	400,000
Bermuda	500	-	-	-
British West Indies ...	575	-	-	-
Canada	179,570	2,700	(NA)	22,200
Cayman Islands	8,500	(NA)	(NA)	-
France	15,900	-	-	(NA)
Hong Kong	291,895	(NA)	60,000	(NA)
Indonesia	82,000	82,000	-	-
Japan	6,008,824	1,039,225	1,627,582	596,500
Korea, Republic of	11,550	(NA)	-	-
Netherlands	19,600	3,400	-	-
Netherlands Antilles ..	17,735	-	-	-
New Zealand	38,400	23,000	10,400	-
Taiwan	13,500	-	-	-
United Kingdom	193,801	30,000	(NA)	-
Vanuatu	2,500	-	-	-

NA Not available.
Source follows table 688.

Table 688.-- FOREIGN INVESTMENTS IN HAWAII, BY TYPE OF INVESTMENT: PRE-1970 TO JUNE 1989

[In thousands of dollars. Data are estimates based on incomplete reporting, and do not include undisclosed amounts]

Type of investment	Pre-1970 through June 1989		All countries		
	All countries	Japanese investments	1987	1988	1989: Jan.-June
All types	7,521,231	6,008,824	1,238,225	1,776,563	1,018,700
Agriculture...........	43,700	4,900	1,600	11,000	(NA)
Banks	28,801	17,001	-	382	2,900
Condominiums	751,550	501,450	90,800	136,550	23,750
Golf courses	114,550	114,550	-	5,250	-
Hotels	3,274,501	3,029,320	659,370	921,031	110,200
Manufacturing	444,330	32,830	23,500	(NA)	400,000
Other real estate	2,470,680	2,103,075	419,785	636,800	476,850
Restaurants	44,245	40,520	5,770	4,200	-
Retailing, wholesaling	70,029	63,804	(NA)	4,350	(NA)
Science, education ...	87,201	7,500	33,400	-	(NA)
Miscellaneous	191,644	93,874	4,000	47,000	5,000

NA Not available.

Source: Hawaii State Department of Business and Economic Development, Trade and Industry Development Branch, A Listing of Foreign Investments in Hawaii, Mid-Year Report, June 30, 1989, pp. 87-89.

Table 689.-- JAPANESE INVESTMENT IN HAWAII REAL ESTATE, BY LOCATION AND PROPERTY USE: JANUARY 1987 TO MARCH 1988

[Million dollars]

Location	Amount	Property use	Amount
State total	890	Improved residential	288
		Apartment, hotel	266
Oahu	742	Commercial	131
Honolulu	668	Industrial	20
Waikiki	293	Agricultural	38
Waialae, Kahala	135	Conservation	28
Other	241	Resort/hotel	114
Rest of island	73	Unimproved residential	3
Other islands	148	Unknown	3

Source: University of Hawaii, Hawaii Real Estate Research and Education Center, *A Preliminary Statistical Evaluation of Japanese Investment in Hawaii Real Estate: January 1987 to March 1988* (June 8, 1988).

Table 690.-- JAPANESE INVESTMENT IN REAL ESTATE, FOR THE UNITED STATES, HAWAII AND HONOLULU METROPOLITAN STATISTICAL AREA: 1988 AND EARLIER YEARS

Period	United States (bil. dol.)	Hawaii		Honolulu MSA	
		Amount (bil. dol.)	Rank	Amount (mil. dol.)	Rank
1987	12.77	3.33	1	(NA)	(NA)
1988	16.54	1.83	4	1,325	4
Cumulative:					
Through 1987	26.34	7.24	1	4,420	3
Through 1988	42.88	9.07	(NA)	5,745	(NA)

NA Not available.

Source: Kenneth Leventhal & Company, *1988 Japanese Investment in United States Real Estate* (1989), pp. 1, 7, and 10.

Section 25

COMPARATIVE NATIONAL STATISTICS

This section presents statistics for the United States as a whole, the corresponding figures for Hawaii, and the rank of Hawaii among the 50 states and District of Columbia. The 12 tables in this section contain 358 series, thought to include the most significant or frequently requested types of data for which national comparisons are available. Virtually all of the major subject-matter areas covered in the first 24 sections of the Data Book are represented. The comparisons include totals, averages, medians, percentages, and rates.

Ranked against other jurisdictions, Hawaii was first in 24 comparisons, second in 13, last in 8, and second last in 12. Hawaii ranked 39th in population, first in life expectancy, third in public school pupil-teacher ratio, 16th in crime rate, 47th in land area, 14th in percent of land owned by the Federal government, 27th in visitor expenditures, 48th in votes cast as a percent of voting-age population, 16th in State and local government expenditures per capita, 22nd in defense spending, 28th in public aid recipients relative to population, 20th in female labor force participation rate, 15th in per capita personal income, sixth in family living costs (based on data for 100 metropolitan areas), 37th in bank deposits, 28th in commercial television stations, 47th in energy consumption per capita, 50th in highway mileage, first in volume of crop marketings for pineapple, macadamia nuts, and bananas, 18th in value of fish catch, 49th in percent of housing units owner occupied, 46th in value added by manufacture, 16th in retail sales per capita, 9th in hotel receipts, and third in percent of agricultural land that is foreign owned.

High ranks do not necessarily mean favorable scores, nor low ranks unfavorable scores. Hawaii was first (highest) in expectation of life at birth and 49th (third lowest) in crude death rate, for example, but both were highly desirable positions.

When Hawaii shared the same rank with other jurisdictions, the next lower rank (or ranks) was omitted. Although most comparisons were for 51 areas (50 states and the District of Columbia), some ranked Honolulu against other large metropolitan areas, and a few were based on other groupings. Variations in comparison groups are noted in the stubs.

Some of the values shown for Hawaii in this section differ from the corresponding figures given elsewhere in the Data Book, because of differences in sources or subsequent revisions in data.

This section was taken from other tables in this edition or their underlying sources, Statistical Abstract of the United States: 1989, pp. xv-xxiv, and State and Metropolitan Area Data Book, 1986, table 1. Historical data on state rankings are not readily available for most series.

Table 691.-- POPULATION, VITAL STATISTICS, AND HEALTH

Subject	United States	Hawaii	
		Number	Rank
Resident population, 1988 (1,000)	245,807	1,098	39
Percent change in resident population, 1980-1988	8.5	14.7	11
Resident population per square mile, 1987	68.8	168.5	14
Percent of population in metro areas, 1987	76.9	76.7	18
Percent male, 1988	48.7	50.9	3
Resident population, percent 65 years and over, 1988	12.4	10.4	44
Median age of population, 1988 (years)	32.3	31.9	31
Resident population, by selected races, 1980:			
White, percent of population	83.1	33.0	50
Black, percent of population	11.7	1.8	38
Asian and Pacific Islander, percent of population	4.5	64.9	1
Pct. married of persons 15 years old and over, 1980:			
Male	60.1	55.2	50
Female	54.8	56.8	22
Households, 1988 (1,000)	91,538	353	43
Persons per household, 1988	2.62	2.99	2
One-person households, percent of all households, 1980	22.7	17.1	51
Christian church adherents, percent of population, 1980	49.3	33.1	48
Births per 1,000 population, 1986	15.6	17.2	8
Percent of births to teenage mothers, 1986	12.6	9.6	40
Percent of births to unmarried women, 1986	23.4	20.3	26
Deaths per 1,000 population, 1987	8.7	5.7	49
Abortions per 1,000 women 15-44, 1985	28.0	43.7	3
Infant mortality per 1,000 births, 1987	10.1	8.9	39
Deaths per 100,000 population, by cause, 1987:			
Diseases of the heart	312.4	184.3	49
Malignant neoplasms	195.9	131.9	49
Cerebrovascular diseases	61.6	42.7	45
Accidents and adverse effects	39.0	28.7	51
Average life expectancy, 1979-1981 (years)	73.88	77.02	1
Marriages per 1,000 population, 1986	10.0	15.2	3
Divorces per 1,000 population, 1986	4.9	4.4	32
Per capita personal health care expend., 1982 (dollars)	1,220	1,228	17
Average daily hospital room charge, 1988 (dollars)	253	256	17
Hospital beds per 100,000 population, 1986	532	366	50
Hospital occupancy rate, 1986	68.8	77.2	8
Active physicians per 100,000 civilian population, 1986	205	221	10
Active dentists per 100,000 civilian population, 1986	57	65	13

Table 692.-- EDUCATION AND LAW ENFORCEMENT

Subject	United States	Hawaii	
		Number	Rank
Elementary and secondary schools:			
Public, 1986-1987	80,207	216	49
Private, 1980-1981	20,764	114	34
Elementary and secondary school enrollment (1,000):			
Public, Fall 1986	39,837	165	40
Private, 1980-1981	4,962	37	31
Elementary and secondary school teachers (1,000):			
Public, 1987-1988	2,275	8.8	43
Private, 1980-1981	277.4	2.1	31
Public school enrollment, percent of persons 5-17 years old, Fall 1986	88.2	84.2	44
Percent change in public school enrollment, 1980-1986	-2.8	-0.0	19
Pupil-teacher ratio in public schools, Fall 1986	17.8	22.6	3
Public school expenditures, 1987-1988 (mil. dol.)	171,690	648	44
Per pupil in daily attendance (dollars)	4,209	3,894	29
Per capita (dollars)	705	598	40
Scholastic Aptitude Test scores, 50 States, 1986-1987:			
Verbal	430	404	48
Math	476	477	33
High school graduates as percent of population 25 years and older, 1980	66.5	73.8	9
Public high school graduates, 1988 (1,000)	2,419.7	10.5	41
Public teachers' average annual salary, 1988 (dollars)	28,044	28,785	16
Higher education enrollment, Fall 1986 (1,000)	12,501	52	41
College graduates as percent of population 25 and older, 1980	16.3	20.3	5
Earned degrees conferred, 1985-1986:			
Bachelor's	987,823	3,385	46
Master's	288,567	911	41
Doctorate	33,653	132	39
Average salaries of full-time instructional faculty of institutions of higher education, 1985-1986 (dollars)	32,392	30,444	24
Crime rate per 100,000 population, 1987	5,480	5,671	16
Violent crime rates	609	263	38
Property crimes	4,940	5,555	13
Marijuana harvest, 1987 (billion dollars)	33	1.33	6
Federal and State prisoners per 100,000 population, 1987	228	141	37
Expenditures per capita for criminal justice activities, 1986 (dollars)	195	226	10
Population per lawyer, 1985	360	373	38

Table 693.-- GEOGRAPHY, ENVIRONMENT, LAND USE, AND LAND OWNERSHIP

Subject	United States	Hawaii	
		Number	Rank
General coastline (statute miles)	12,383	750	4
Land area, 1980 (1,000 square miles)	3,539.3	6.4	47
Highest point (feet)	20,320	13,796	6
Approximate mean elevation (feet)	2,500	3,030	10
Water withdrawal per capita, 1985 (gallons per day), fresh	1,400	1,100	31
Ground water withdrawn, percent of total, withdrawn 1985	18.5	30.5	9
Hazardous waste sites, 1988 (50 States)	1,167	6	41
Environmental quality score, 1988	1/ 29	38	10
Air pollutant emissions, 1982 (1,000 tons):			
Carbon monoxide	88,440	342	43
Nitrogen oxides	22,929	63	47
Particulates	40,661	55	48
Normal daily mean temperature, 69 cities including Honolulu, 1951-1980 (degrees Fahrenheit):			
January	32.5	72.6	1
July	75.2	80.1	15
Annual average	54.5	77.0	1
Temperature of record, 69 cities including Honolulu, period of record through 1985 (degrees Fahrenheit):			
Highest temperature	105	94	68
Lowest temperature	-13	53	69
Normal annual precipitation, 69 cities including Honolulu, 1951-1980 (inches)	34.72	23.47	55
Average number of days with precipitation of .01 inch or more, 69 cities including Honolulu, period of record through 1985	113	100	52
Average percentage of possible sunshine, 69 cities including Honolulu, period of record through 1985	59	67	9
Average wind speed, 69 cities including Honolulu, period of record through 1985 (miles per hour)	9.4	11.6	7
Land owned by federal government, percent of total land area, 1987	31.9	16.4	14
Urban land acreage per capita, 1980	0.28	0.21	46

1/ Median State.

Table 694.-- RECREATION, TOURISM, AND ELECTIONS

Subject	United States	Hawaii	
		Number	Rank
Foreign visitor arrivals, 1983 (1,000)	21,707	1,423	5
Visitor expenditures, 1984 (million dollars)	411,350	4,620	27
Foreign visitor expenditures, 1983 (milllion dollars)	13,772	1,172	4
Domestic travel expenditures, 1987 (million dollars)	275,158	3,301	25
Economic impact of foreign visitors, 1983:			
Payroll (million dollars)	3,066	305	4
Employment	312,800	28,800	4
Tax revenues (million dollars)	1,647	127	4
Economic impact of domestic visitors, 1987:			
Payroll (million dollars)	60,749	818	24
Percent of total payroll	4.9	13.1	3
Employment (1,000)	5,038	60	27
Tax revenues (million dollars)	33,645	392	27
State travel budgets, 50 States, FY 1986-1987 ($1,000)	234,170	8,464	8
National Park System acreage, FY 1984 (1,000 acres)	74,898	245	17
State parks and recreation acreage, 50 States, FY 1987 (1,000 acres)	13,752	25	46
Paid license holders, FY 1987 50 States (1,000):			
Fishing	30,350	8.4	50
Hunting	15,819	12.1	50
Passports issued, 1983 (1,000)	4,121.5	37.6	27
Per capita State appropriations for State arts agencies, 1988 (dollars)	1.00	3.60	3
Number of local governments, 1987	83,166	18	50
Voting-age population, 1988 (1,000)	182,628	824	39
Popular vote cast for President, 1988 (1,000)	88,963	351	43
Votes cast, percent of voting-age population	50.2	43.0	48
Percent voting for Republican party	53.9	45.2	48
Vote cast for U.S. Representatives, 1986 (1,000)	59,619	331	40
Percent voting for Democratic party	54.6	56.4	25

Table 695.-- GOVERNMENT FINANCES AND EMPLOYMENT AND NATIONAL DEFENSE

[Fiscal year data unless otherwise specified]

Subject	United States	Hawaii	
		Number	Rank
Federal government:			
Per capita expenditures, 1988 (56 areas) (dollars) ...	3,545	4,535	7
Per capita grants to State and local government, 1988 (56 areas) (dollars) ...	460	437	34
Civilian employment per 10,000 population, 1986 ...	118.7	254.2	4
State and local government:			
Per capita general revenue, 1987 (dollars) ...	2,919	3,024	11
Per capita taxes, 1987 (dollars) ...	1,665	1,955	8
Per capita debt outstanding, 1987 (dollars) ...	2,953	3,235	22
Per capita general expenditure, 1987 (dollars) ...	2,695	2,835	16
Per capita capital outlay, 1987 (dollars) ...	340	512	5
Employees per 10,000 population, 1986 ...	492	502	21
Average employee earnings, October 1986 (dollars):			
State employees (50 States) ...	2,052	1,844	28
Local employees (50 States and D.C.) ...	1,992	2,010	20
Per capita adjusted gross income, 1986 (dollars) ...	10,256	10,319	20
Per capita Federal income tax, 1986 (dollars) ...	1,579	1,428	23
Residential effective property tax rate per $100, 1987 (Honolulu and 50 other large cities) ...	1/ 1.39	0.59	51
Per capita revenues of State government, 1986 (dollars):			
General sales tax ...	311	703	1
Individual income tax ...	281	440	7
Federal funds for defense, 1988 (million dollars) ...	228,224	2,562	22
Department of Defense employment, 1987:			
Civilian employees (1,000) ...	979.3	20.7	16
Military personnel (1,000) ...	1,377.4	45.4	7
Department of Defense payroll, 1987 (mil. dol) ...	60,331	1,757	9
Department of Defense contract awards, 1987 (mil. dol.)	133,262	461	39
Veterans, March 31, 1989 (1,000) ...	27,103	100	43
Per 1,000 civilian population 18 and over ...	152.2	135.3	44

1/ Median city of 51 surveyed.

Table 696.-- SOCIAL INSURANCE, HUMAN SERVICES, LABOR FORCE, EMPLOYMENT, AND EARNINGS

Subject	United States	Hawaii	
		Number	Rank
Payments for Aid to Families with Dependent Children, 1986 (million dollars)	16,033	72	36
Public aid recipients, percent of population, 1987	6.2	4.9	28
Food stamp recipients, percent of population, 1987	7.5	7.6	17
Social Security recipients percent of population, 1987	15.3	12.7	44
Medicare payments, 1987 (million dollars)	80,316	234	42
Average weekly unemployment benefits, 1987 (dollars)	140	155	14
Quality of life score, 300 metropolitan areas including Honolulu, 1989	(NA)	(NA)	14
Civilian labor force, 1988 (1,000)	121,669	516	42
Civilian employment, 1988 (1,000)	114,968	500	42
Civilian employment, pct. of civilian noninstitutional population 16 years and over, 1987	61.5	64.8	18
Unemployed persons, 1988 (1,000)	6,701	16	44
Unemployment rate, pct. of civilian labor force, 1988	5.5	3.2	46
Male unemployment rate, 1988	5.5	3.4	43
Female unemployment rate, 1988	5.6	3.0	46
Percent of persons 16 and over in labor force, 1988:			
Male	76.2	74.3	38
Female	56.6	60.0	20
Nonagricultural employment, 1985 (1,000)	97,614	423	43
Percent manufacturing	19.8	5.2	47
Percent services	22.5	26.0	5
Percent government	16.8	22.0	10
Percent change, 1980-1985	8.0	4.5	30
Percent in managerial and professional specialty occupations, 1988	(NA)	27.3	12
Average annual pay, workers covered by State unemployment compensation, 1987 (dollars)	20,855	19,091	24
Average annual wages, selected industries, 1987 (dol.):			
Construction	23,129	29,793	2
Manufacturing	25,668	20,129	46
Retail trade	11,513	11,654	15
Services	18,912	17,603	19
Hotels	11,374	15,355	4
Average hours of work, 1988	(NA)	39.0	37
Labor union membership, 1982 (1,000)	19,571	126	32
Percent of nonagriculture employed	21.9	31.5	5

NA Not available.

Table 697.-- INCOME, EXPENDITURES, WEALTH, AND PRICES

Subject	United States	Hawaii	
		Number	Rank
Gross state product, 1986 (billion dollars)	4,192	19.3	41
Percent change, 1980-1986	57.0	47.8	32
Manufacturing, percent of total, 1986	19.7	5.2	47
Personal income, 1988 (billion dollars)	4,053	18.4	40
Percent increase, 1978-1988	124.3	128.8	20
Per capita personal income, 1988 (dollars)	16,489	16,753	15
Percent increase, 1978-1988	102.7	93.5	27
Median income, 1979 (dollars):			
Households	16,841	20,473	2
Families	19,917	22,750	5
Unrelated individuals	6,695	7,097	12
Median family income, fiscal 1987 (dollars)	30,400	32,900	8
Percent of persons below poverty level, 1984-1986	14.0	9.9	46
Household finances, 1984-85, 26 MSAs incl. Honolulu:			
Average income before taxes (dollars)	1/ 26,172	30,751	4
Average expenditures (dollars)	1/ 23,763	24,818	7
Top wealthholders, 1982 (50 States):			
Gross assets over $350,000	4,478.8	20.3	39
Total assets (billion dollars)	3,218	14.767	39
Net worth over $1,000,000 (1,000)	475.5	1.4	43
Net worth (billion dollars)	1,200	4.813	36
Consumer price index for all urban consumers, MSAs including Honolulu, 1988 annual average:			
1967=100 (26 MSAs)	354.3	335.2	24
1982-1984=100 (27 MSAs)	118.3	121.7	6
Percent increase, 1987-1988 (29 MSAs)	4.1	5.9	2
Four-person family budgets, Autumn 1981 (dollars), 25 MSAs including Honolulu:			
Lower budget	15,323	20,319	2
Intermediate budget	25,407	31,893	1
Higher budget	38,060	50,317	1
Four-person higher-income family budget, 1986 (percent of U.S. average), 100 MSAs including Honolulu	100.0	114.5	6
Retail food prices, June 1987 (percent of 17-city average), 17 cities including Honolulu	100.0	126.6	1

1/ Western Region average.

Table 698.-- BANKING, INSURANCE, BUSINESS ENTERPRISE, AND COMMUNICATIONS

Subject	United States	Hawaii	
		Number	Rank
Total deposits of insured banks, insured savings institutions, mutual savings banks, and credit unions, 1985 (billion dollars)	2,905.3	13.2	37
Commercial bank deposits, Dec. 31, 1987 (billion dol.)	1,979.9	10.2	38
Per capita deposits (dollars)	8,134	9,376	6
Savings and loan deposits, Dec. 31, 1986 (billion dol.)	928.8	3.8	37
Bank loans-to-equity ratios, 50 States, June 1986	(NA)	5.9	11
Venture capital funds per capita, 50 States, 1985 (dol.)	39.2	1.4	33
Dividends, int., and rent income per capita, 1985 (dol.)	2,347	2,050	33
Shareowners of public corporations, mid-1985 (1,000)	47,040	256	36
Percent of household population	20.1	24.8	7
Life insurance in force per household, 1987 (dollars)	82,800	112,000	2
Average auto insurance premium, 1987 (dollars)	487	530	13
Percent of population enrolled in HMO's, 1986	9.8	18.4	5
Percent without health insurance, 1985 (48 states)	17.4	11.8	44
Private business establishments, 1986 (1,000)	5,807.0	26.2	41
With 1 to 4 employees (1,000)	3,258.4	14.1	43
With 1,000 employees or more (numbers)	4,827	18	40
New business incorporations, 1987 (1,000)	684.6	2.9	40
Fast-growth companies, percent of businesses, 50 States, 1987	(NA)	2.88	11
Fortune 1000 corporate headquarters per million residents, 50 States, 1985	(NA)	3.80	16
Women-owned businesses, percent of female labor force, 50 States, 1982	(NA)	9.8	15
Business failures per 10,000 concerns, 1988 (50 States)	98	79	29
Inc.'s ranking of 50 State economies, 1989	(NA)	(NA)	12
The Corp. for Enterprise Development's "Development Report Card," 50 States, 1988 (grades of A through F):			
Performance Index	(NA)	A	2
Business Vitality Index	(NA)	D	38
Capacity Index	(NA)	B	13
Policy Index	(NA)	C	24
Telephone access lines, December 31, 1987 (1,000)	126,725	505	43
Percent of housing units with telephones, 1980	93.0	95.1	15
Commercial radio stations, January 10, 1985	8,354	39	47
Commercial television stations, January 10, 1985	887	13	28
Cable TV households, pct. of TV households, July 1985	45.1	65.1	2
Daily newspaper circulation per capita, 1987	0.26	0.22	31

NA Not available.

Table 699.-- ENERGY, SCIENCE, AND TRANSPORTATION

Subject	United States	Hawaii	
		Number	Rank
Energy consumption per capita, 1986 (million Btu.)	308	217	47
Percent of energy consumption (in Btu) from petroleum, 1986	43.4	98.3	1
Energy expenditures per capita, 1986 (dollars)	1,578	1,347	48
Electric energy sales, 1987, 50 States (billion kWh)	2,455	7.2	44
Lowest net monthly residential electric bill for 500 kWh use, 1987 (dollars)	1/ 24.33	40.00	3
Gas utility sales, 1986 (trillion Btu)	11,126	3	50
Average price of utility (piped) gas for 100 therms, 1986 (28 MSAs, including Honolulu)	58.70	129.81	1
Average sales price (excluding excise taxes) of motor gasoline per gallon, 1988 (cents), 49 States and D.C.	63.8	87.4	1
Federal obligations for research and development, 1987 (million dollar)	54,067	64.4	41
Research and development expenditures in universities, 1987 (million dollar)	11,931	57.3	38
Patents issued to U.S. residents, 1987	47,711	46	48
Highway and street mileage, December 31, 1987 (1,000)	3,874	4.1	50
Licensed drivers per 1,000 driving-age population, 1987	863	758	50
Automobile registrations per 1,000 population, 1987	571	591	19
Vehicle-miles of travel per mile of road, 1986	474	1,750	2
Average highway speed, FY 1987 (m.p.h.), 50 States	56.1	55.0	45
Motor vehicle accident deaths per 100,000 population, 1986	20.0	11.7	51
Commuting to work, 1980:			
Percent of workers using public transportation	6.4	8.3	7
Percent of workers using private transportation	84.1	78.5	45
Mean travel time to work (minutes)	21.6	21.5	13
Aircraft facilities, December 31, 1987	17,015	54	47
Air operations (takeoffs and landings), 1987 (1,000)	61,004	884	22
Aircraft operations at Honolulu International Airport, 1987 (1,000), all FAA-oper. airports	(NA)	385	16
Enplaned passengers at Honolulu International Airport, 1987 (1,000), all FAA-oper. airports	(NA)	7,773	17
General aviation, active aircraft, 1987 (1,000)	217.2	0.5	49
Active pilots, Dec. 31, 1987 (1,000)	699.7	3.4	43
Numbered vessels (State-registered), 1988 (1,000)	10,363	14.2	51
Boating accidents, 1988	6,718	31	40

NA Not available.

1/ Median State.

Table 700.-- AGRICULTURE, FORESTS, FISHERIES, AND MINING

[Ranking among 50 states]

Subject	United States	Hawaii	
		Number	Rank
Farm population, percent of total population, 1980	2.48	0.47	45
Farms, 1988 (1,000)	2,159	4	44
Land in farms, 1988 (million acres)	999	2	40
Acreage per farm, 1988 (acres)	463	443	17
Acreage, individual or family farms, pct. of total, 1982	65.1	24.6	49
Value of land and buildings, 1982 (million dollars)	774,158	3,575	39
Average value per farm ($1,000)	345.9	778.5	3
Average value per acre (dollars)	784	1,826	9
Value of products sold per farm, 1982 ($1,000)	58.9	121.6	3
Farm debt-to-asset ratio, 1987 (percent)	18.9	8.2	44
Net farm income-to-debt ratio, 1987 (percent)	28.9	48.8	7
Acreage in harvested crop, 1982 (1,000 acres)	326,306	156	48
Vegetables	3,330.6	4.7	39
Sugarcane, for sugar	713.1	89.7	3
Pineapple	23.1	23.1	1
Macadamia nuts	15.7	15.5	1
Bananas	1.1	1.1	1
Value of farm marketings, 1987 (million dollars)	138,094	559	40
Crops	61,876	471	33
Livestock and products	76,218	88	47
Volume of crop marketings, 1982:			
Sugarcane, for sugar (1,000 tons)	27,902	8,950	2
Pineapple, harvested (tons)	627	627	1
Macadamia nuts (1,000 pounds)	35,648	35,595	1
Taro (1,000 pounds)	6,386	3,360	1
Coffee, parchment (1,000 pounds)	1,806	1,806	1
Value of sales of livestock, poultry, and their products, 1982 (million dollars)	69,644	103	47
Cattle and calves	31,635	45	41
Dairy products	16,320	24	45
Poultry and poultry products	9,797	22	39
Hogs and pigs	9,868	9	36
Forest land, 1987 (1,000 acres)	727,921	1,748	43
Commercial timberland, 1987 (1,000 acres)	483,072	700	45
Commercial fish catch, 1987 (million pounds)	6,896	16	18
Value of fish catch, 1987 (million dollars)	3,115	29	18
Mineral (nonfuel) production value, 1986 (million dol.)	23,452	70	44
Value added in mining 1982 (million dollars)	188,056	10	47
Mineral industry employees, 1982 (1,000)	1,114.0	0.2	49

Table 701.-- CONSTRUCTION, HOUSING, AND MANUFACTURES

Subject	United States	Hawaii	
		Number	Rank
Private housing units authorized by building permits, 1987 (1,000)	1,534.8	6.9	37
Valuation of units authorized (million dollars)	98,346	470	34
Value of construction contracts, 1987 (billion dollars)	254.7	1.2	38
Construction industry establishments, 1982 (1,000)	1,389.3	4.3	49
Construction business receipts, 1982 (mil. dol.)	365,421	2,032	37
Construction industry employees, 1982 (1,000)	4,275.1	18.7	41
Average payroll per employee (dollars)	18,401	21,949	5
Existing home sales, 1987 (1,000)	3,887	11.5	46
Median purchase price of existing 1-family houses, 1987 (dollars) 53 MSAs, including Honolulu	85.6	186.0	1
Housing units, 1980 (1,000)	88,411	334	43
Year-round housing units, 1980 (1,000)	86,693	332	43
One unit at address (percent)	66.0	51.7	49
Five or more units at address	17.9	38.1	2
Median rooms per unit	5.1	4.4	50
Percent vacant	7.3	11.5	3
Occupied year-round housing units, 1980 (1,000)	80,390	294	43
With 1.01 or more persons per room (percent)	4.5	15.3	1
Percent owner-occupied units	64.4	51.7	49
Condominium housing, 1980 (1,000)	2,253	74	6
Percent of total housing units	2.5	22.2	1
Median value of owner-occupied condo units ($1,000)	59.1	99.0	1
Median value of owner-occupied units, 1980 ($1,000)	47.2	118.1	1
Median monthly homeowner costs, 1980 (dollars)	365	463	2
Median monthly rent of renter-occupied units, 1980 (dollars)	243	311	2
Air-conditioning in homes, percent of year-round housing units, 1980	55.0	18.1	47
Manufacturing establishments, 1982	358,061	966	44
Value of manufacturing shipments, 1986 (billion dollars)	2,260.3	3.1	45
Value added by manufacture, 1986 (billion dollars)	1,035.8	1.2	46
Value added by manufacture, 1982 (billion dollars)	824.1	1.1	44
Average per establishment ($1,000)	2,302	1,158	46
Average per employee (dollars)	43,161	47,441	9
Manufacturers' inventories, end of 1982 ~~(bil. dol.)~~	306.1	0.4	45
New capital investment, manufacturing, 1983 (mil. dol.)	61,924	61	48
Average per production worker (dollars)	5,081	4,067	39
Manufacturing employees, 1986 (1,000)	18,371	23	45
Production workers	11,767	16	45
Average hourly earnings of production workers, 1987 (dollars)	9.91	9.30	35

Table 702.-- DOMESTIC TRADE, SERVICES, AND FOREIGN AND INTERSTATE COMMERCE

Subject	United States	Hawaii	
		Number	Rank
Retail sales, 1986 (billion dollars)	1,476.2	6.8	41
Sales per capita (dollars)	6,123	6,430	16
Retail trade establishments, 1982 (1,000)	1,923.2	8.9	42
Retail sales, selected businesses, 1986 (bil. dol.):			
Food stores	302.3	1.3	41
General merchandise stores	171.0	0.8	40
Automotive dealers	337.5	1.0	45
Eating and drinking places	144.7	1.2	32
Gasoline service stations	91.9	0.4	44
Apparel and accessories stores	77.2	0.6	32
Wholesale trade establishments, 1982 (1,000)	415.8	1.7	42
Service establishments, 1982 (1,000)	1,261.7	6.1	40
Service receipts, 1982 (billion dollars)	427.0	2.7	34
Receipts per service establishment ($1,000)	338.4	434.3	4
Receipts of service ests., selected businesses, 1982:			
Business services (million dollars)	106,866	314	38
Health services (million dollars)	95,610	420	38
Legal services (million dollars)	34,325	173	34
Hotels, motels, and other lodging places (mil. dol.)	33,215	973	9
Automotive repair, services, and garages (mil. dol.)	30,695	249	32
Hotel occupancy rate (percent), 1988 1/	64.5	78.5	1
Hotel daily room rate (dollars), 1988 1/	69.07	87.94	3
Motion picture industry, ests. with payroll, 1982:			
Production, distribution, and service ests.	7,905	15	34
Receipts (million dollars)	10,117	4	40
Theaters	9,344	34	47
Exports, 1988 (billion dollars)	322.2	0.13	50
General imports, 1988 (billion dollars)	459.6	1.12	34
Foreign direct investment (nonbank affiliates), inc. U.S. terr. and poss., and offshore sites, 1987:			
Gross property, plant, and equipment (bil. dol.)	346.2	3.2	29
Employment (1,000)	3,159.7	22.4	31
Japanese owned	284.6	15.8	5
Land owned (1,000 acres)	13,829	57	35
Export-related manufactures shipment value, 1986 (billion dollars)	284.3	0.3	48
Export-related as percent of total shipments	13.0	10.3	43
Foreign-owned agricultural land as percent of all private agricultural land, 1988	1.0	2.7	3

1/ For 30 regions (States, groups of States, or parts of States).

BIBLIOGRAPHY

This volume is the 23rd in a series published by the Hawaii State Department of Business and Economic Development (DBED) and its predecessor agencies. The first was *Statistical Abstract of Hawaii, 1962*, issued by the Department of Planning and Research in 1962. After a four-year hiatus, updated versions titled *The State of Hawaii Data Book* were published by the Department of Planning and Economic Development in 1967, 1968, and annually beginning in 1970. The 1987 edition was the first one issued by DBED. All of the volumes issued before 1989 are now out of print, but copies can be consulted in the DBED Library, Hawaii State Library, University of Hawaii and community college libraries, and other collections throughout the State.

Additional information regarding specific statistical sources can be found in the introductory statements to each section of the *Data Book*, in footnotes and source references to the various tables, and in the underlying reports.

Although most of the series in the *Data Book* are shown only for recent years, many earlier figures appear in *Historical Statistics of Hawaii*, by Robert C. Schmitt. This book, published by the University Press of Hawaii in 1977, contains 711 pages of narrative and tables on the development of statistics in Hawaii since the 18th century.

Privately published works of general statistical reference include *Hawaii Facts and Figures 1989*, sold by the Chamber of Commerce of Hawaii, and *All About Business in Hawaii 1989*, published by Crossroads Press, Inc.

Two of the four counties have produced statistical abstracts. In 1988, the Kauai Economic Development Board issued *1987 Statistical Abstract of the Kauai Economy*, prepared by the Center for Business and Economic Development, University of Hawaii at Hilo. The Hawaii County Department of Research and Development has published *County of Hawaii Data Book 1980*, now out of print.

Persons interested in data for other States or the nation as a whole should consult the *Statistical Abstract of the United States* and its companion volumes, *the State and Metropolitan Area Data Book* and *County and City Data Book*. The *Abstract* is an annual publication of the U.S. Bureau of the Census, initiated in 1878. The current edition is the 109th, dated 1989; copies are available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D. C. 20402. The *State and Metropolitan Area Data Book, 1986* and *County and City Data Book, 1988* are sold by the same agency.

Table A.-- PRINTING HISTORY OF THE STATE OF HAWAII DATA BOOK:
1962 TO 1988

Edition	Number of pages	Number of tables	Price (dollars)		Printing costs (dollars)	Number of copies printed
			Hawaii	Outside State		
1962 1/	128	243	1.00	1.00	(NA)	(NA)
1967	66	95	(NA)	(NA)	1,969.45	3,000
1968	69	99	1.00	1.00	2,969.20	3,000
1970	136	135	1.00	1.00	2,470.92	2,030
1971	159	152	2.00	2.00	4,149.60	2,000
1972 2/	227	210	4.00	5.00	6,245.00	3,000
1973	290	262	4.00	5.00	6,309.00	1,500
1974	306	292	4.00	5.00	9,330.00	2,000
1975	302	309	4.00	5.00	10,222.95	2,000
1976	312	335	4.00	5.00	9,901.13	2,000
1977	339	374	4.00	5.00	11,990.00	2,000
1978	379	425	4.00	5.00	8,900.00	2,000
1979	447	407	4.00	5.00	10,744.00	2,500
1980	545	496	5.00	10.00	12,335.00	2,500
1981	603	563	5.00	10.00	14,910.00	3,000
1982	596	566	5.00	10.00	15,633.00	3,000
1983	663	622	5.00	10.00	15,875.00	2,500
1984	762	724	5.00	15.00	32,003.00	3,000
1985	662	680	5.00	15.00	19,995.00	3,000
1986	705	721	5.00	15.00	19,980.00	3,000
1987	722	746	5.00	15.00	21,981.00	3,000
1988	694	737	5.00	15.00	21,700.00	3,000

NA Not available.

1/ The 1962 edition was titled *Statistical Abstract of Hawaii, 1962.* In addition, a 41-page, 57-table supplement, *Historical Statistics of Hawaii, 1778-1962*, was published and distributed without extra charge to persons receiving the regular edition.

2/ A 19-page supplement, *State of Hawaii Census Tract Maps and Directory of Hawaii Map Sources*, was included with each copy of the regular edition, and was not sold separately.

Source: DBED records.

ON-LINE AVAILABILITY OF DATA BOOK TABLES TO PUBLIC

Early in 1988, the Hawaii State Department of Business and Economic Development initiated a pilot program to make Data Book tables and selected other statistical series available to anyone with a personal computer and a modem.

The pilot program incorporates the full text of The State of Hawaii Data Book (including available updates to the current edition) and the data and analyses in the department's most recent Quarterly Statistical & Economic Report. Other publications and data series may be added if there is sufficient demand.

The DBED electronic bulletin board is available free 24 hours a day, seven days a week.

Until now, getting updated Data Book tables was a time-consuming process. Now the almost daily updates are available on-demand and in a format that is more convenient for people who use many of the popular electronic spreadsheets.

The system is easy to use. It is menu-driven and contains numerous "prompts" which guide the user to the data sets. It also has electronic mail features that permit users to leave messages on the system. Since this is a pilot project, user comments and suggestions are solicited.

The bulletin board is maintained on an IBM System 2 microcomputer which is located in the Department's Research and Economic Analysis Division. The system uses the PC Board version 14.0/E3 software. The bulletin board can be accessed at either 300, 1200 or 2400 baud. Anyone wishing to access the system can call (808) 946-5191. Neighbor Island residents can call toll free 1-800-421-3233. A users guide is available from the Department's Information Office (548-4025) or can be retrieved from the system.

For further information about available data or system specifications, users should call the Research and Economic Analysis Division at (808) 548-4355.

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